Pat Cotter 10/26

- How's new permit working out
- problems any problems
- Understand 1 year monitoring report due
- Astro dry doch? any problems? registrati
- How's plume look, hang out disperse anything wrong in? Reports of "back wash"

→ Fantino

→ SP- own boat? Altern. Read permit

→ if having problems- want to know about it.

→ Pat will enter additional

Ocean dumping

Report Sept 1988 - July 1990 - current meter not working (fixed now?)

Are they doing it? Any problems?

1. Monthly Monitoring of waste streams (1 sample / month - consisting of 3 replicate samples = 1 composite sample.

2. Name/address of contract lab submitted w/in 30 days. - Did they submit QA control procedures, detection limits? EPA must approve.

3. Report required every 6 months of monthly data - any problems w/ obtaining data? Results? (1st report due mid-April 1991)

4. Checking for any permit violations? (sent to EPA/ASEPA w/in 5, 15 working days of detection.) Exceeded permit limits; disposal outside limits.

5. July 1991 Report (1 yr) on heavy metals + petroleum hydrocarbons measured since 1986; accuracy, QA of lab, measures to improve precision of data; engineering analysis of source, proposal to reduce levels 10%, 50% + 95%; engineering + economic analysis of reduction

6. July 1991 Report on accuracy + precision of all data since 1980 (waste streams + parameters) QA evaluation

- Disposal location - any problem w/ finding location, plotting navigational course etc.
  - Course, speed, discharge?; Report of operations
  - Kind of electronic positioning system (did CG approve?)

- Monthly Monitoring Reports (submit w/ 6 month reports)
  - sample waste plume at 5 sampling stations, specified distance from starting pt.; 3 depths, surface water conditions

COS SAMOA PACKING
COMPANY

January 10, 2001

USEPA
REGION IX
Pacific Insular Areas Program
75 Hawthorne Street
San Francisco, CA 94105

Attention Carl Goldstein

On December 21, 2000, ASEPA reported to COS Samoa Packing and Starkist Samoa that what appeared to be sludge residue had washed up on Alega Beach. COS Samoa Packing and Starkist Samoa responded by sending clean up crews to the site to remove the residue.

There was also a similar incident reported at Coconut Point on December 29, 2000. When the two canneries investigated no sludge like material could be found. This was confirmed by Sheila Weigman of ASEPA. There was no clean up involved.

Representatives from COS Samoa Packing, Starkist Samoa, sludge vessel Tasman Sea and ASEPA have a meeting scheduled for Tuesday January 16, 2001 to investigate the possible scenarios that may have occurred and establish a course of action.

Yours Sincerely

Herman Gebauer
General Manager.

Cc J. Cox COSINTL.
S Weigman ASEPA
File /E-7000

P.O. Box 957 Pago Pago, American Samoa 96799
684 644-5272 FAX 684 644 2290

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
Pacific Insular Areas Program
75 Hawthorne Street
San Francisco, CA 94105

January 11, 2001

Phil Thirkell
General Manager
StarKist Samoa, Inc.
P.O. Box 368
Pago Pago, AS 96799

Dear Mr. Thirkell:

A few days ago we were informed by the American Samoa EPA that fish waste had washed up in various locations on the shorelines of Tutuilla, AS in the latter part of December 2000. Alega beach was mentioned specifically with regards to this incident. ASEPA also informed us that ASEPA was contacted by the canneries and told that the canneries were cleaning their sludge tanks and intended to dispose of the waste from the sludge tank cleaning operation at the designated ocean dumping site in your Ocean Dumping Permit.

My staff then contacted COS Samoa Packing and learned that the incident did occur. Since that time we have received letters from both your company and COS Samoa Packing concerning this incident.

Upon detection of a violation of any permit requirement for your Ocean Dumping Permit, (in this case, at a minimum, the violation concerns Section 1.4.5), the permittee is required to send a written notification of the violation to EPA Region 9 and the ASEPA within five working days, and a detailed written report of the violation to these agencies within 15 working days (see Section 3.3.4). **Had we not made contact initially, EPA Region 9 might never have received word from either COS Samoa Packing or StarKist Samoa about this possible violation of your Ocean Dumping Permit.**

On January 10, 2001 we did receive a letter from each COS Samoa Packing, and StarKist Samoa, advising us of the subject incident. By January 25, 2001, COS Samoa and StarKist Samoa shall submit a detailed written report (report may jointly written) to EPA Region 9 and ASEPA that at a minimum provides the following information with regard to this violation:

1. A description of the sludge cleaning and disposal operation that caused the violation, including the date, time, volume and description of sludge, operational procedures, and a chronological history of previous sludge tank cleaning and disposal events in which sludge tanks were cleaned and the waste sludge produced by the cleaning operation was disposed of at the designated ocean dumping site.

2. The response by COS Samoa Packing and StarKist Samoa towards identifying the shoreline areas that may be or were affected by the sludge waste; and the removal, clean-up, and disposal efforts for those areas where the sludge waste was discovered.

3. The operational and maintenance procedures that will be immediately instituted by COS Samoa Packing and StarKist to prevent the problem of flotables, and any other unpermitted sludge waste, from being disposed at the ocean dump site.

4. The written procedures (clean-up) that are in place, or to be developed, to respond to an incident of sludge waste being washed up on the shorelines in American Samoa.

As EPA Region 9 staff review the information submittals detailed above, other information specific to this incident and related to any aspects of ocean disposal may be required as additional submittals to our office. Please be reminded that any person who violates any provision, term, or condition of this permit shall be liable for a civil penalty of not more that $50,000 per day for each violation. Additionally, any knowing violation of the permit may result in a criminal action being brought with penalties of not more than $50,000 or one year in prison, or both.

If you have any questions, please contact Carl L. Goldstein, American Samoa Program Manager, (Ph: 415-744-2170; fax: 415-744-1604; email: goldstein.carl@epa.gov).

Sincerely,

Norm Lovelace
Manager
Pacific Insular Area Programs

cc: ASEPA
COS Samoa Packing
John Brown

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
Pacific Insular Areas Program
75 Hawthorne Street
San Francisco, CA 94105

January 11, 2001

Herman Gebauer
General Manager
COS Samoa Packing, Inc..
P.O. Box 957
Pago Pago, AS 96799

Dear Mr. Gebauer:

A few days ago we were informed by the American Samoa EPA that fish waste had washed up in various locations on the shorelines of Tutuilla, AS in the latter part of December 2000. Alega beach was mentioned specifically with regards to this incident. ASEPA also informed us that ASEPA was contacted by the canneries and told that the canneries were cleaning their sludge tanks and intended to dispose of the waste from the sludge tank cleaning operation at the designated ocean dumping site in your Ocean Dumping Permit.

My staff then contacted COS Samoa Packing and learned that the incident did occur. Since that time we have received letters from both your company and StarKist Samoa concerning this incident.

Upon detection of a violation of any permit requirement for your Ocean Dumping Permit, (in this case, at a minimum, the violation concerns Section 1.4.5), the permittee is required to send a written notification of the violation to EPA Region 9 and the ASEPA within five working days, and a detailed written report of the violation to these agencies within 15 working days (see Section 3.3.4). **Had we not made contact initially, EPA Region 9 might never have received word from either COS Samoa Packing or StarKist Samoa about this possible violation of your Ocean Dumping Permit.**

On January 10, 2001 we did receive a letter from each COS Samoa Packing, and StarKist Samoa, advising us of the subject incident. By January 25, 2001, COS Samoa and StarKist Samoa shall submit a detailed written report (report may jointly written) to EPA Region 9 and ASEPA that at a minimum provides the following information with regard to this violation:

1. A description of the sludge cleaning and disposal operation that caused the violation, including the date, time, volume and description of sludge, operational procedures, and a chronological history of previous sludge tank cleaning and disposal events in which sludge tanks were cleaned and the waste sludge produced by the cleaning operation was disposed of at the designated ocean dumping site.

2. The response by COS Samoa Packing and StarKist Samoa towards identifying the shoreline areas that may be or were affected by the sludge waste; and the removal, clean-up, and disposal efforts for those areas where the sludge waste was discovered.

3. The operational and maintenance procedures that will be immediately instituted by COS Samoa Packing and StarKist to prevent the problem of flotables, and any other unpermitted sludge waste, from being disposed at the ocean dump site.

4. The written procedures (clean-up) that are in place, or to be developed, to respond to an incident of sludge waste being washed up on the shorelines in American Samoa.

As EPA Region 9 staff review the information submittals detailed above, other information specific to this incident and related to any aspects of ocean disposal may be required as additional submittals to our office. Please be reminded that any person who violates any provision, term, or condition of this permit shall be liable for a civil penalty of not more that $50,000 per day for each violation. Additionally, any knowing violation of the permit may result in a criminal action being brought with penalties of not more than $50,000 or one year in prison, or both.

If you have any questions, please contact Carl L. Goldstein, American Samoa Program Manager, (Ph: 415-744-2170; fax: 415-744-1604; email: goldstein.carl@epa.gov).

Sincerely,

Norm Lovelace
Manager
Pacific Insular Area Programs

cc: ASEPA
StarKist Samoa
Jim Cox

COS SAMOA PACKING

COMPANY

January 19, 2001

Mr. Norm Lovelace
Manager
U.S. Environmental Protection Agency, Region IX
Pacific Insular Areas Program
75 Hawthorne Street
San Francisco, CA 94105

Dear Mr. Lovelace:

We are pleased to respond to your January 11, 2001 letter re: Ocean Dumping Permit incident, and submit our detailed written report addressing the concerns and issues as identified therein.

Item 1.

Cleaning of the sludge tanks occur periodically to ensure compliance with Sections 2.4, 2.4.1, and 2.4.2 and other relevant sections of our Ocean Dumping Permit and affirm that cleaning of the sludge tanks and disposal did occur during the time(s) of the reported incident. COS Samoa Packing Company did clean it's onshore high strength storage tank on December 20th at 10:30 to 17:38 hrs and 21st at 11:00 to 16:00 hrs loading 40,580 and, 81,160 gallons respectively on to the Tasman Sea . The Tasman Sea dumped these loads at the designated dump site on the 21st and 22nd of December, 2000

The current cleaning procedure is to pump all liquid in the storage tank to the Tasman Sea, open the manhole, perform the confined space entry procedure, enter the tank with all safety equipment, power wash and scrap down the walls and tank base, exit tank, close manhole, flush tank with water and pump residue to the Tasman Sea.

According to the attached document from Blue North Fisheries the Tasman Sea cleaned and flushed the vessels sludge tanks on December 22nd, 24th, 26th, 27th, 29th and 30th. The tanks are filled and flushed with sea water repeatedly to flush out any heavy build up.

P.O. Box 957 Pago Pago, American Samoa 96799
684 644-5272 FAX 684 644 2290

Item 2.

To the best of our knowledge during the period of the reported incident, the shoreline areas that were or may have been affected by wash-up of sludge-like material are Alega Beach and Coconut Point-Nu'uuli. On 12/21/00 we were notified by ASEPA that sludge-like material had washed ashore on Alega Beach. Both Samoa Packing and Starkist-Samoa responded by dispatching clean-up crews to the site. The crews collected sludge-like material from the high tide mark as very small particles (less than ¼-inch diameter) and placed them into plastic bags for removal and disposal. Ms. Tisa Fa'amuli, the owner of Alega Beach, preferred to dispose of the collected material by burning it at the beach, which was done.

On 12/24/00 further sludge-like material was again observed and reported to Starkist by Tisa Fa'amuli washing ashore Alega Beach. Starkist offered to send a clean-up crew however, Tisa Fa'amuli declined assistance stating she preferred to do the clean-up herself.

On 12/29/00 sludge-like material was reported to ASEPA washing ashore at Coconut Point. Mr. Joe Carney, Starkist Utilities Manager, was unable to find any material after inspecting the site for clean-up and reported it to ASEPA. Sheila Weigman of ASEPA traveled to the site that day and also could not find any sludge-like material at Coconut Point and agreed clean-up was not necessary.

Item 3.

Attached are copies of work orders generated from our computorized maintenance program that detail procedures that will be instituted to prevent the (potential) problem of floatables from being disposed at the ocean dump site inclu:

A. The monthly emptying of sludge tanks.

B Implementation of Quarterly sludge tank cleaning procedure.

C. The sludge boat to flush out one tank on a weekly rotation basis with sea water after discharging it's load, pending D below.

D. It was also discussed/agreed in a recent 01/16/01 meeting by ASEPA and both canneries that the services of an independent 4th party, scientific researcher (e.g., Steve Costa of CH2M Hill) should be jointly retained to investigate the chemical properties of sludge and recommend alternatives (chemical and mechanical) to effectively minimize / prevent the coagulation or "crusting" of sludge material in on-shore and vessel sludge tanks that may be contributing to floatables.

Item 4:

The current clean-up procedures will be further reviewed and formalized into a written procedure by March 01, 2001 for immediate implementation. The procedure will include specific equipment, storage and ready access requirements. Harbor Refuse & Environmental Services is on 24-hour retainer by both canneries to provide services for any large scale spills or wash-ups. We reaffirm that COS Samoa Packing Company will respond in writing within the designated time frames of the permit to all permit variances.

Sincerely,

Herman Gebauer
General Manager

Attachments: **Work orders**
Reporting of possible permit violations,
Tasman Sea tank cleaning procedure,
Chronology of Tasman Sea tank cleaning for past 12 mths.

CC: **Tony Tausaga ASEPA, (x 2 copies)**
Blue North Fisheries
Phil Thirkell, Starkist-Samoa

StarKist Samoa, Inc.

A Division of Star-Kist Foods, Inc.
P.O. Box 368
Pago Pago, Tutuila Island
American Samoa 96799
Telephone: (684) 644-4251
Fax: (684) 644-7440

22

January 22, 2001

Mr. Norm Lovelace
Manager, Pacific Insular Area Programs
EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

Re: January 11, 2001 Letter from EPA Region 9

Dear Mr. Lovelace,

Herein is our response to your letter dated January 11, 2001 concerning the incidents of material washing up on the shoreline of Tutuila, American Samoa on December 21, 24 and 29, 2000 (the "incidents"). We appreciate your concern in this matter and assure you that we continue to work diligently to ensure that our operations have minimal negative impact on the American Samoa area.

In the course of our assessment of the incidents, on January 18,2001 we received for the first time the F/V Tasman Sea Ocean Dumping Logs for December 18, 2000 and December 19, 2000. Upon reviewing the logs for these two days we discovered that floatable material had been observed on those days. On December 18, 2000 only COS Samoa Packing sludge was disposed while on December 19, 2000 both StarKist Samoa and COS Samoa Packing sludge was disposed. The floating material on December 18, 2000 was described on thelog as "patches of heavy dark brown scum" and on December 19, 2000 the description was "small patches of brown particulate scum".

The remainder of this response addresses questions 1 through 4 of your January 11, 2001 letter regarding the incidents.

1. <u>Sludge cleaning and disposal operations</u>

During plant shutdowns (three times each year) we drain to the fullest practical extent all material in our high-strength wastewater tank, which include sludges created by the dissolved air flotation (DAF) primary treatment equipment. The tank is rinsed during this time. All resulting sludge and water is loaded onto the F/V Tasman Sea for disposal at the ocean dumping site.

When the F/V Tasman Sea has completed its dumping operation at the dump site, it fills its cargo tanks with seawater which is subsequently discharged. This fill and discharge procedure may be repeated as necessary. Next, access covers on the deck are removed and the tank sides and bottom are washed with a fire hose. Wash water is discharged into the dump site as it accumulates. Finally, crew members enter the open tank wearing either respirators or breathing apparatus and continue to wash the tank with the fire hose. Wash water is again discharged to the dump site as it accumulates.

During the past twelve months, plant shutdowns, and thus sludge cleaning and disposal operations, occurred during the following dates:

April 16, 2000 through April 22, 2000 (last load of sludge was disposed at the ocean dump site on April 16, 2000).

October 9, 2000 through October 15, 2000 (last load of sludge was disposed at the ocean dump site on October 11, 2000).

December 15, 2000 through January 14, 2001 (last load of sludge was disposed at the ocean dump site on December 21, 2000).

Note that sludge is routinely disposed at the ocean dump site and has averaged 34 times per month from January 2000 through December 2000.

The F/V Tasman Sea cleaned its tanks at the ocean dumping site on April 1, 16, 18, and 19, 2000 and on December 22, 24, 26, 27, 29 and 30, 2000.

2. ***Response by COS Samoa Packing and StarKist Samoa to the Incident***

Late in the day on December 21, 2000 ASEPA contacted StarKist Samoa and COS Samoa Packing about some material having the appearance of sludge residue being washed up on Alega Beach. On the morning of December 22, 2000 StarKist Samoa and COS Samoa Packing dispatched crews to Alega Beach who then removed the material.

On December 24, 2000 Tisa Fa'amuli (associated with Tisa's Barefoot Bar located on Alega Beach) called Joe Carney of StarKist Samoa at home stating that material had again washed up on Alega Beach. Joe told Tisa that he would dispatch a crew from StarKist Samoa to clean up the material, as part of StarKist Samoa's normal response. However, Tisa told Joe she did not want any help in removing the material. A similar exchange occurred between Tisa and Lance Ihaka of StarKist Samoa.

Late in the day on December 29, 2000 ASEPA contacted StarKist Samoa about some material having the appearance of sludge residue being washed up on Coconut Point. Immediately after notification StarKist Samoa initiated actions to respond as part of normal procedures. On the morning of December 30, 2000 no material was found at the site, however. Sheila Weigman of ASEPA visited the site and confirmed there was no such material present.

3. *Operational and Maintenance Procedures*

Through our investigation of the incidents it appears there were unusual weather conditions at the time of the December sludge disposal operations following cleaning of the sludge tank and the F/V Tasman Sea's tanks. Specifically, the wind was from the south-southeast, and seas were calm. The possibility exists that some materials discharged into the dump zone may have uncharacteristically migrated toward Tutuila.

A potential option that could be exercised during periods of unusual weather such as described above is to discharge the sludge farther out to sea, possibly in international waters. We request the assistance of EPA Region 9 to research the possibility of dumping sludge further out from Tutuila during periods of unusual weather, and also to define the distance required to be in international waters as well as any regulations that may affect such practice.

On January 19, 2001 the F/V Tasman Sea developed a procedure whereby any indication of a possible permit violation during an ocean dumping run will be reported to both StarKist Samoa and COS Samoa Packing immediately upon returning to the canneries. This verbal notification will be strengthened with the development of a written procedure and accompanying form that is to be completed by the F/V Tasman Sea for each ocean dumping run. The form will document the occurrence or non-occurrence of any possible permit violation. StarKist Samoa will review these forms daily and take appropriate action.

We are also working with the F/V Tasman Sea to develop procedures to wash out the vessel's tanks on a rotating basis, one tank per week. This practice will reduce the amount of heavy sludge discharged during any given discharge event, thus reducing the possibility of material making its way back to Tutuila. Full compliance with the Ocean Dumping Permit requirements will be maintained at all times.

Finally, we are considering commissioning a study, jointly with American Samoa EPA and COS Samoa Packing, to assess the transport of sludge discharged at the ocean dump site. We believe the study will facilitate our ability to further minimize the impact of ocean dumping on the environment.

4. Written Clean-Up Procedures

StarKist Samoa and COS Samoa Packing have always, as part of our normal procedures, and our wish to behave as good corporate citizens, dispatched crews to clean up materials washed up on the shore of Tutuila when notified of an incident. We are now putting these procedures in writing to address the cleanup of materials, whether such materials washed up as a result of a violation of the ocean dumping permit or not.

a. Dispatch crews to the site upon notification and clean up the material.
b. Notify American Samoa EPA and US EPA Region 9 of the incident by telephone with a follow-up letter sent via facsimile and U. S. Postal Service.
c. Investigate the source of the material and likely reasons for appearing on the shore.
d. Within 30 days of notification to StarKist Samoa of an incident, provide a written follow-up report to American Samoa EPA and US EPA Region 9.

We will provide you with a copy of our written procedures once they are developed, no later than February 23, 2001.

I trust that this response addresses your concerns. In the meantime, please advise us should you have any questions or require additional information.

Sincerely,

STARKIST SAMOA, INC.

PHIL THIRKELL
General Manager

/tl

cc: American Samoa Environmental Agency (+2 copies)
Max Miller
John Brown
Blue North
Barry Mills

StarKist Samoa, Inc.

A Division of Star-Kist Foods, Inc
P.O. Box 368
Pago Pago, Tutuila Island
American Samoa 96799
Telephone: 684 644-4231
Facsimile: 684 644-2440

February 20, 2001

Mr. Norm Lovelace
Manager, Pacific Insular Area Programs
US EPA Region 9
75 Hawthorne Street
San Francisco CA 94105

RE: Follow up to StarKist Samoa's Letter Dated Jan. 19, 2001.

Dear Mr. Lovelace,

Herein is StarKist Samoa's follow-up letter and accompanying procedures as discussed in our Jan. 19, 2001 letter to US EPA Region 9. That letter concerned the incidents of material washing up on the shoreline of Tutuila, American Samoa.

As discussed in section 4 of our Jan. 19, 2001 letter please find attached to this letter written procedures that were developed for: the tank cleaning process on the F/V Tasman Sea; Procedure for Tasman Sea daily trip report and a copy of the report and the written procedures for the response to an incident of material washing-up on the shoreline of Tutuila Island, American Samoa.

I trust that this response addresses your concerns. In the meantime, please advise us should you have any questions or require additional information.

Sincerely,

Joe Carney
Utilities Dept. Head
StarKist Samoa

BLUE NORTH FISHERIES INC.
TANK CLEANING PROCESS FOR F/V TASMAN SEA

Tank cleaning operations consist of three stages:

1) Cargo tanks are filled with seawater which is then pumped out as per a normal discharge operation. This stage may be repeated as necessary.
2) Access covers on the deck are removed and the tank sides and bottom are washed by firehose from the deck. Wash water is discharged by cargo pumps as it accumulates.
3) Crew members enter tank with either respirators or breathing apparatus and continue to wash tank with firehose. Again, wash water is discharged by cargo pumps (running continuously) as it accumulates.

This cleaning process would be implemented on a one tank per week rotational basis in order to prevent excess accumulation of the heavier elements of the waste cargo.

STARKIST SAMOA

PROCEDURE FOR RESPONSE TO AN INCIDENT OF MATERIAL WASHING UP ON THE SHORES OF TUTUILA ISLAND A.S.

1. Upon notification of an incident of material washing up on the shores of Tutuila Island, organize StarKist Samoa's clean up crew and equipment.

2. Dispatch the crew to the incident site.

3. Notify American Samoa EPA and US EPA Region 9 of the incident by telephone with a follow-up letter sent via facsimile and U.S. Postal Service.

4. Clean up the material at the incident area and remove for disposal with the approval of the American Samoa EPA.

5. Investigate the source of the material and likely reasons for appearing on the shore.

6. Within 30 days of notification to StarKist Samoa of an incident as indicated in item 1 above, provide a written follow-up report to American Samoa EPA and US EPA Region 9.

PROCEDURE FOR F/V TASMAN SEA DAILY TRIP REPORT

1. The attached trip report will be filled out for every trip made by the vessel.

2. If no incident has occurred during the trip the No box will be marked, the report will be dated and signed by the captain.

3. In the event that an incident or possible violation has occurred during the disposal trip, the captain on board (Tasman Sea Vessel) will record ANY possible permit violation, in detail including date, time and wind direction and the Yes box will be marked.

4. The report will be turned in to the StarKist Samoa Engineering office immediately upon the return of the Tasman Sea Vessel to the plant.

TASMAN SEA DAILY DISPOSAL TRIP REPORT

Notations of ANY possible permit violation, floatables, etc.

First Trip Yes_____ No _____

Second Trip Yes_____ No_____

If marked YES for either trip above explain in detail below including date, wind direction and time of incident. Deliver completed and signed form to StarKist Samoa Engineering office immediately upon returning to the plant.
If marked NO above sign and deliver to Engineering office upon returning to the plant.

_____

_____

_____

_____

_____

_____

_____

_____

_____

Captain_____ Date_____

Task Report (Full List)

Task No. SLUDGE 01
Description QUARTERLY SLUDGE TANK CLEANING PROCEDURE
Assigned To SITIVI
WO Type Q-PM
Expense Class 86
Priority 3.00
Multitask No
In-service Task Yes

Craft	Crew Size	Estimated Labor Hours
W/W OPER	4.00	5.00

Equipment No. 86-00-4164
Equipment Description SLUDGE TANK
Location WASTE WATER
Sub-location 1 -
Sub-location 2 GROUND
Sub-location 3 -
Date Last Performed
Next Due Date 3/20/01
Tenant
Perform Every 3.00 Month(s)
Schedule Type Duplicates
Task Duration 4.00
No. of Times Completed
Down Time
Must Be Down No

Equipment No.	Meter Name	Last Performed At

Task Instructions

Instruction Code SLUDGE 01 **Date Last Edited** 1/23/01

1. EMPTY TANK TO APPROXIMATELY 10 TO 12FT.
2. TURN ON LIVE STEAM INJECTION TO STEAM SPARGE IN BOTTON OF SLUDGE TANK.
3. HEAT SLUDGE TANKTO +200 F FOR AT LEAST 2HRS WITH MIXERS ON.
4. TURN OFF MIXERS, CLOSE STEAM VALVE AND PUMP SLUDGE TANK TO TASMAN SEA.
5. PERFORM CONFINED SPACE ENTRY PROCEDURE.
6. ENTER TANK WITH ALL REQUIRED PERSONAL PROTECTIVE EQUIPMENT AND POWER WASH TANK WALLS AND BASE.
7. SCRAP FREE AND BREAK UP ANY STUBBORN BUILD UP.
8. EXIT TANK, CLOSE AND SEAL ACCESS WAY, REFILL TANK WITH RE-USE WATER TO 10 TO 12FT.
9. TURN ON MIXERS, TURN ON LIVE STEAM TO STEAM SPARGE AND REHEAT TANK TO +200F FOR AT LEAST 2HRS.
10. TURN OFF MIXERS, CLOSE STAM VALVE AND PUMP SLUDGE TANK TO TASMAN SEA.

Task Report (Full List)

Task No. SLUDGE 02
Description MONTHLY SLUDGE TANK EMPTYING PROCEDURE
Assigned To SITIVI
WO Type M-PM
Expense Class
Priority 3.00
Multitask No
In-service Task Yes

Craft	Crew Size	Estimated Labor Hours
W/W OPER	1.00	5.00

Equipment No. 86-00-4164
Equipment Description SLUDGE TANK
Location WASTE WATER
Sub-location 1 -
Sub-location 2 GROUND
Sub-location 3 -
Date Last Performed
Next Due Date 2/20/01
Tenant
Perform Every 30.00 Day(s)
Schedule Type Duplicates
Task Duration 5.00
No. of Times Completed
Down Time
Must Be Down No

Equipment No.	Meter Name	Last Performed At

Task Instructions

Instruction Code SLUDGE 02 **Date Last Edited** 1/23/01

1. PUMP ALL LIQUID IN SLUDGE TANK TO TASMAN SEA.
2. FILL TANK TO 10 TO 12FT WITH RE-USE WATER.
3. OPEN STEAM TO STEAM SPARGE IN BOTTOM OF SLUDGE TANK AND TURN MIXERS.
4. HEAT TANK TO +200F FOR 2HRS.
5. TURN OFF STEAM AND MIXERS.
6. PUM ALL LIQUID TO TASMAN SEA.

BLUE NORTH FISHERIES INC.
F/V TASMAN SEA

Title: Reporting of possible permit violations.

Purpose: Timely reporting of any possible permit violations to the canneries.

Scope: Starkist dock to the designated discharge zone.

Procedure: The Master of the discharge vessel will note the time, position and description of any floatable materials originating from the waste cargo as well as any possible procedural violations in the daily discharge log. This information will then be reported to the canneries immediately upon returning to the Starkist dock.

BLUE NORTH FISHERIES INC.
TANK CLEANING PROCESS FOR F/V TASMAN SEA

Tank cleaning operations consist of three stages:

1) Cargo tanks are filled with seawater which is then pumped out as per a normal discharge operation. This stage may be repeated as necessary.
2) Access covers on the deck are removed and the tank sides and bottom are washed by firehose from the deck. Wash water is discharged by cargo pumps as it accumulates.
3) Crew members enter tank with either respirators or breathing apparatus and continue to wash tank with firehose. Again, wash water is discharged by cargo pumps (running continuously) as it accumulates.

COS Samoa Packing Corp.
P.O. Box 957,
American Samoa 96799

WASTEWATER TREATMENT FACILITY DAILY LOG SHEET

05600

Date: 12.05.00

TIME: A.M.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
EFFLUENT FLOWRATE (M.G/D)							.76	.61	.78	.75	.64	.68	.84	.86	.70	.86	.98	.98	.98	.98	.98	.84	.84	.84
EFFLUENT TOTALIZER	OUT	OF	SERVICE				2475[illegible]	2477[illegible]	2479[illegible]	2481[illegible]	2483[illegible]	2485[illegible]	2487[illegible]	2489[illegible]	2491[illegible]	2493[illegible]	2495[illegible]	2497[illegible]	2499[illegible]	2501[illegible]	2503[illegible]	2505[illegible]	2507[illegible]	2509[illegible]
FLUME pH																								
CITY WATER PRESSURE (PSI)	15	15	10	15	15	10	30	30	20	15	30	30	35	15	16	10	10	15	18	18	15	15	15	10
RAW WATER TANK DEPTH (FEET)	22-22	22-23	23-23	22-22	22-22	22-22	23-23	23-23	23-23	22-22	22-22	22-22	22-22	20-21	20-20	20-21	19-19	18-18	17-19	17-20	20-21	18-18	16-16	18-18
PLANT WATER PRESSURE (PSI)	95	94	95	96	95	96	98	98	95	96	95	98	95	96	96	80	98	96	96	115	98	96	95	96
SURGE TANK DEPTH (FEET)	20	20	23	25	21	21	35	38	37	40	38	40	38	40	41	41	40	38	36	35	33	34	25	23
SURGE TANK TEMPERATURE	92°	92°	95°	94°	90°	92°	96°	94°	96°	70	94°	94°	94	97°	99	96°	96°	96°	98°	97°	96°	96°	97°	97°
RE-USE TANK DEPTH (FEET)	15	15	15	15	10	9	5	5	5	6	12	17	28	32	34	34	34	34	34	35	32	30	30	30
RE-USE WATER PRESSURE (PSI)	36	36	36	36	36	35	35	35	35	38	38	38	38	36	34	34	35	35	32	34	34	34	34	34
RE-USE WATER FLOW RATE (GPM)	–	–	–	–	–																			
SLUDGE TANK DEPTH (FEET)	22	25	24	25	27	27	28	28	29	29	Pumping	16	18	19	20	21	20	Pump	PING	10	11	12	12	
SPRING WATER TANK DEPTH (FEET)	27	27	27	25	27	34	30	30	30	30	36	34	32	30	30	32	30	30	28	26	28	30	30	30
SPRING WATER FILTER PRESSURE (PSI)	35	35	35	35	35	35	50	50	50	52	50	52	50	52	54	54	52	52	50	51	53	53	53	53
SPRING WATER FLOW RATE (GPM)																								
OUTFALL TEMPERATURE	87°	87°	89°	88°	86°	87°	86°	86°	84	83°	83°	83	83°	89	84	85°	86°	86°	87°	87	86°	86°	86°	87°
OUTFALL pH	6.7	6.8	6.8	6.7	6.8	6.8	6.8	6.8	6.7	6.9	6.6	7.6	6.7	6.8	6.9	6.9	7.0	7.0	6.8	6.8	6.7	6.8	6.9	6.6
OUTFALL PRESSURE (PSI)	23	23	23	23	23	20	25	25	24	23	24	24	23	24	25	25	23	24	24	23	25	24	18	24

FIRST SHIFT: Rosaline, Linda, Pete 0600-1400 HRS.

SECOND SHIFT: 1400-2200 HRS.

THIRD SHIFT: 2200-0600 HRS.

COMMENTS:

18

SLUDGE VESSEL PUMPING LOG: 1ST TRIP		
BEFORE PUMPING: 1571719	TIME 1420HR	DEPTH 23'
AFTER PUMPING: 1643779	TIME 1705HR	DEPTH 12'
TOTAL GALLONS PUMPED: 72,060 gals.		

SLUDGE VESSEL PUMPING LOG: 2ND TRIP.		
BEFORE PUMPING: 1643779	TIME 1015Hrs	DEPTH 27
AFTER PUMPING: 1710396	TIME 1254Hrs	DEPTH 16
TOTAL GALLONS PUMPED:	66,617 gals	

TOTAL GALLONS PUMPED: 138,677 GALS

COS SAMOA PACKING COMPANY
AMERICAN SAMOA
DAILY SLUDGE LOADING TO TASMAN SEA

KEY **COLUMN**

A. COS main tank before loading (In feet).
B. COS main tank after loading (In feet).
C. Meter reading before loading.
D. Meter reading after loading.
E. Volume pumped to Tasman Sea in gallons. (C-Dx1000).
F. Volume pumped to Tasman Sea in Tons.

TRIP NO. First Comb. Trip

DATE BOAT LEAVE: 12.05.00 (TUES.)

LOADING DATE: 12.04.00

START TIME: 1420HR FINISHED TIME: 1705HR

A	B	C	D	E	F
23'	12'	1571719	1643779	72,060 gals.	

Faafiga Tarila
OPERATOR SIGNATURE

CC: B. Ransby
Tasman Sea
File/E-9100

COS SAMOA PACKING COMPANY
AMERICAN SAMOA
DAILY SLUDGE LOADING TO TASMAN SEA

KEY **COLUMN**

A. COS main tank before loading (In feet).
B. COS main tank after loading (In feet).
C. Meter reading before loading.
D. Meter reading after loading.
E. Volume pumped to Tasman Sea in gallons. (C-Dx1000).
F. Volume pumped to Tasman Sea in Tons.

TRIP NO. First Comb. Trip

DATE BOAT LEAVE: 10-00-00 (WED.)

LOADING DATE: 12-05-00

START TIME: 1840HR FINISHED TIME: 2100HR

A	B	C	D	E	F
23'	10'	710408	777177	66,775 gals.	

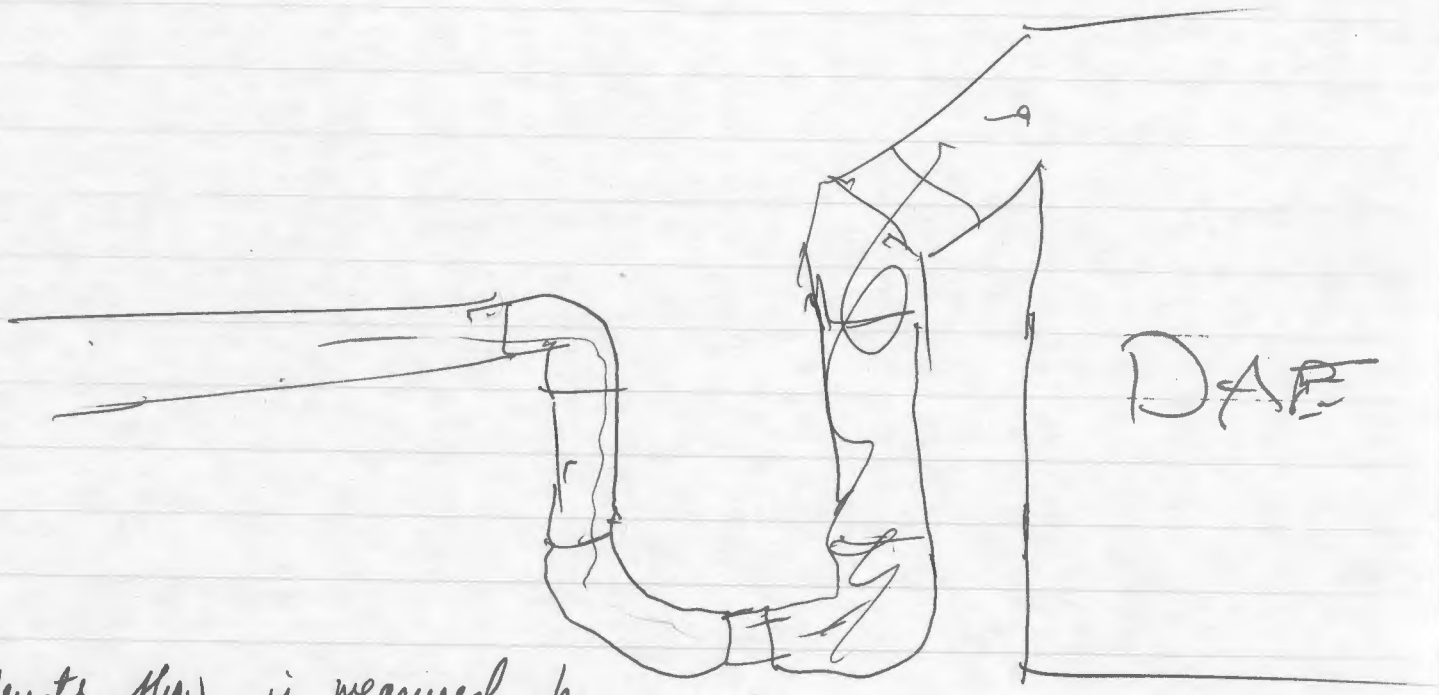
J. Tarita
OPERATOR SIGNATURE

CC: B. Ransby
Tasman Sea
File/E-9100

COS

surge tank - ≈ 200,000 gal → usually 50-70% full
sludge tank - ≈ 200,000 gal " < 50% full Daily 4,000/ft
DAF - use 25% of flow for aeration

New sludge meters installed 12/00 - hope that all sludge flow was done by Vol. calc based on depth 40lbs/ft.
To date, 2,446,451 gal.



Wastewater flow is measured by meter every hour for 24 hours then averaged. Q → surge tank → day tank → DAF → sludge → heat.
→ effluent → outfall

Lab analyses - TSS, TKN, TP, oil & grease, BOD
For January, they do not have to do Cu & Zn. Will start in February.

BLUE NORTH FISHERIES INC.
F/V TASMAN SEA

CHRONOLOGY OF TASMAN SEA CARGO TANK CLEANING OPERATIONS, JANUARY - DECEMBER, 2000:

1) 01, 16, 18 &19 April.
2) 22, 24, 26, 27, 29 & 30 December.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

OFFICE OF THE
REGIONAL ADMINISTRATOR

In reply, please refer to: WTR-5

DEC 3 1 2000

Herman Gebauer, General Manager
COS Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, Tutuila
American Samoa 96799

Re: COS Samoa Packing Company, Inc.
NPDES Permit No. AS0000027

Dear Mr. Gebauer:

Enclosed is a copy of the above captioned National Pollution Discharge Elimination System (NPDES) permit. The NPDES permit is hereby issued upon the date of signature and shall become effective thirty-three (33) days from the date of this cover letter, unless a petition is filed with the Environmental Appeals Board (EAB) to review any conditions of the final permit under 40 CFR 124.19(a), as revised at 65 Fed. Reg. 30886, 30911 (May 15, 2000). A copy of such petition should be sent to the EPA address listed above.

The staff at the U.S. Environmental Protection Agency (EPA) has reviewed the NPDES permit application for the above captioned facility and have prepared a draft permit in accordance with the Clean Water Act (CWA). The EPA has also published a public notice of its tentative decision to issue this permit. After considering the expressed views of all interested persons and agencies, and pertinent Federal statutes and regulations, the EPA, pursuant to 40 CFR Part 124, prepared the above captioned final permit. The final permit conforms to the certification issued by the American Samoa EPA pursuant to 401(a) of the CWA.

As stated in newly-revised 40 CFR 124.19(a), within 33 days after EPA issues the final permit, any person who filed comments on the draft permit or participated in the public hearing may petition the EAB to review any condition of the permit decision. Any person who failed to file comments or failed to participate in a public hearing on the draft permit may petition for administrative review only with regard to changes made from the draft permit to the final permit. The petition shall include a statement of the reasons supporting the review, including a demonstration that any issue being raised was raised during the public comment period (including any public hearing) to the extent required by these regulations and, when appropriate, a showing that the condition in question is based on: (1) a finding of fact or conclusion of law which is clearly erroneous; or (2) an exercise of discretion or an important policy consideration which the EAB should, in its discretion, review. Under 40 CFR 124.16 and 124.60, a petition for review under 40 CFR 124.19 stays the force and effect of the contested conditions of the final permit until final

agency action under 40 CFR 124.19(f).

The EPA will routinely deny any request for an evidentiary hearing which is postmarked later than the 33rd day from the date of this cover letter. If you have any questions regarding the procedures outlined above, please call Sara Roser at (415) 744-1914.

Sincerely,

Terry Oda, Chief
CWA Standards and Permits Office
Water Division

Enclosures

cc: Togipa Tausaga, Director
American Samoa Environmental Protection Agency
Office of the Governor
Pago Pago, AS 96799

Jim Cox
COS international
4510 Executive Drive
Suite 300
San Diego, CA 92121

Steve Costa
P.O. Box 1238
Trinidad, CA 95570-1238

Marie-Claude Filteau
Department of Marine and Wildlife Resources
American Samoa Government
Pago Pago, AS 96799

Nancy Daschbach
National Marine Sanctuaries
P.O. Box 4318
American Samoa Government
Pago Pago, AS 96799

Mike Dworsky
American Samoa Power Authority
P.O. Box PPB
Pago Pago, AS 96799

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FACT SHEET

Permittee's Name: COS Samoa Packing Company

Mailing Address: P.O. Box 957
Pago Pago, Tutuila
American Samoa 96799

Plant Location: Tutuila Island, American Samoa

Contact Person: Jim Cox
Director of Engineering and Environmental Affairs

NPDES Permit No.: AS0000027

I. DESCRIPTION OF FACILITY

The applicant operates a tuna cannery located on Tutuila Island, American Samoa. Process discharges from the cannery enter Pago Pago Harbor at 14 deg. 17 min. 0l sec. South latitude and 170 deg. 40 min. 02 sec. West longitude. The cannery receives whole tuna which is processed into canned tuna and dried fish meal. Waste streams from this operation consist mainly of fish waste, fresh water, and sea water which are treated by Dissolved Air Floatation process. The DAF sludge and the high strength waste (pre-cooker condensate, press juice, fish meal plant wash water, etc.) are barged to sea for disposal. Approximately 360 tons of fish are processed per day. The resulting discharge to Pago Pago Harbor has been a maximum monthly average of 0.72 MGD and a long-term average of 0.56 MGD.

The 1990 American Samoa Water Quality Standards were amended by the American Samoa Environmental Quality Commission (ASEQC), and the amended water quality standards were adopted by the EQC in 1999. Section 24.0205 (e)(1) of the 1999 standards states that "Pago Pago Harbor has been designated by the American Samoa Government to be developed into a transhipment center for the South Pacific. Recognizing its unique position as an embayment where water quality has been degraded from the natural condition, the EQC has established a separate set of standards for Pago Pago Harbor." Section 24.0206 (m) specifies the standards that apply specifically to Pago Pago Harbor.

Administrative orders were issued by EPA in June 1990 to both StarKist Samoa and Samoa Packing Company for violations of water quality-based effluent limits of their respective 1987 NPDES permits. The orders established interim effluent limits and a schedule for compliance with water quality-based effluent limits by March 7, 1992. Concurrently, the American Samoa Government (ASG) also issued consent decrees

mirroring EPA's compliance orders, with stipulated penalties for failure to meet interim effluent limits and compliance schedule deadlines.

Prior to the previous permit, both canneries were required by the orders and consent decrees to segregate high strength waste streams and dispose of these wastes and DAF sludge at a designated ocean disposal site beginning in August 1990. Feasibility studies were also required to be conducted by both canneries for alternatives by which they could achieve compliance with their NPDES permit effluent limits and ASG water quality standards for their remaining discharge into the harbor. The canneries chose to construct a 7,000-foot joint outfall which extends into the outer harbor. The outfall is jointly operated by both canneries for discharge of their effluent.

The two canneries previously applied for a mixing zone consistent with the requirements set forth in Section 24.0207 of the American Samoa Water Quality Standards. The mixing zone requested extends approximately 1300 feet in radius from the discharge point. The mixing zone was approved by the ASEQC on November 27, 1991.

Discharge in compliance with this NPDES permit should ensure achievement of all applicable water quality standards. These standards are designed to prevent degradation of water quality. Therefore, compliance with this NPDES permit should prevent any "unreasonable degradation" of the marine environment, and in accordance with section 403(c) of the Clean Water Act, a NPDES permit may be issued.

II. EFFLUENT LIMITATIONS

Discharges from fish processing facilities are not subject to any effective EPA effluent limitations guidelines. Therefore, permit requirements were established using best professional judgment and specific water quality standards in order to ensure protection of the beneficial uses of the receiving waters.

A. pH

The Best Practicable Technology (BPT) limit for pH is "within the range of 6.0 to 9.0. However, water quality standards listed under 24.0206 (m) state: "The pH range shall be 6.5 to 8.6 and be within 0.2 pH units of that which would occur naturally." Because the water quality standards are more stringent, and because the mixing zone application states that "other water quality standards (beside total nitrogen, total phosphorus and temperature) will be met within the zone of mixing (e.g. pH, fecal coliform) ..." the more stringent standard will apply as the limit.

B. Temperature

Water quality standards specify a temperature limit of 85° F which is to apply to water at the edge of the mixing zone. It is the best professional judgement of this permit writer, that the water will cool at least 10° from the point it enters the discharge pipe to the edge of the mixing zone. Furthermore, modeling studies were performed by the canneries' consultant assuming the effluent was 85° F and 90° F with no significant difference in dilution rates. Therefore, the permit limit contains a 90° F monthly average and a 95° F daily maximum.

C. Oil and Grease

40 CFR 408.140 sets the BPT limit for oil and grease at a daily maximum of 2.1 lbs/1000 lbs of seafood processed and a monthly average of 0.84 lbs/1000 lbs of seafood processed. Limits for oil and grease were calculated by multiplying the BPT limits stated above, by the average daily production level of 360 tons seafood processed/day. Thus the daily maximum for oil and grease is set at 1512 lbs/day and the monthly average at 605 lbs/day.

D. Total Suspended Solids

Limits were set for Total Suspended Solids (TSS) using the same rationale detailed in Section C (Oil and Grease). 40 CFR 408.140 sets the BPT limit for TSS at a daily maximum of 8.3 lbs/1000 lbs of seafood processed and a monthly average of 3.3 lbs/1000 lbs of seafood processed. Limits for TSS were calculated by multiplying the BPT limits stated above, by the average daily production level of 360 tons seafood processed/day. Thus the daily maximum for TSS is set at 5976 lbs/day and the monthly average at 2376 lbs/day.

E. Total Nitrogen

The mixing zone analysis performed by the canneries' consultant, CH2M HILL, indicates that the mixing zone can assimilate 60,000 lbs. of total nitrogen per month. Assuming a 30-day month, an average of 2,000 lbs. of total nitrogen/day can be discharged between the two canneries. The two canneries have agreed between themselves to each assume a portion of this average. Samoa Packing will assume 800 lbs/day as a monthly average limit for total nitrogen.

The canneries are required to sample once/month for total nitrogen on production days. Averaging only these samples will yield a number that assumes weekend values are equal to production days. The canneries have claimed that they discharge significantly less nutrients on the weekends. Therefore, should the permittee wish to monitor the effluent on a non-production day(s), the permittee must monitor for the six consecutive days following the non-production day on which the first sample was taken. The average of all samples taken during that month will determine compliance with the "monthly average."

This requirement will ensure that the monitoring is representative of the discharge, and if the canneries are in compliance with their monthly average limits, the mixing zone's capacity of 60,000 lbs/month of total nitrogen will not be exceeded.

Samoa Packing Company's daily maximum effluent limit for total nitrogen was 1,595 lbs/day, as set in EPA's Administrative Order of June 18, 1990. StarKist's daily maximum limit was 2,440 lbs/day, stated in EPA's letter of October 30, 1991, amending its Administrative Order. These limits were initially to be retained in the new permits. However, the canneries expressed a desire to allocate the total of 4,035 lbs/day between themselves. Since the combined number is the same, the canneries were permitted to do so. StarKist agreed to accept a limit of 2,100 lbs/day, and Samoa Packing Company agreed to a limit of 1,935 lbs/day.

The canneries have claimed that total nitrogen and total phosphorus levels in the effluent have no significant correlation to production levels, and their monitoring data supports such a statement (See Appendix B, "Technical Memorandum for Site-Specific Zone of Mixing Determination for Joint Cannery Outfall Project," CH2M HILL, August 26, 1991). Therefore these effluents limits for total nitrogen and total phosphorus do not limit the canneries' production levels.

F. Total Phosphorus

Limits were set for total phosphorus using the same rationale as that detailed in Section E (Total Nitrogen). The total assimilative capacity of the zone of mixing was calculated by CH2M HILL to be a monthly average of 400 lbs. of total phosphorus/day. This total was divided between the two canneries and Samoa Packing has agreed to assume a monthly average limit of 208 lbs. of total phosphorus/day.

The combined total of daily maximum limits set in the Administrative Orders was 580 lbs. of total phosphorus/day and will be retained in the current permits. The canneries agreed to reapportion their share of the total. Samoa Packing will assume a daily maximum of 271 lbs. of total phosphorus/day.

G. Toxicity

Determination of effluent limits for toxic substances must comply with 24.0206 (h) and 24.0206 (i). Section 24.0206 (h)(1) states, "All effluents containing materials attributable to the activities of man shall be considered harmful and not permissible until acceptable bioassay tests have shown otherwise."

Section 24.0207 (h)(3) states, "The chronic affect on test organisms outside a zone of mixing, if one exists, in the water body receiving the effluent in question shall not be less than that for waters of the same water body that are unaffected by the discharge of pollutant ..."

In its permit application, COS Samoa Packing reported that concentrations of ammonia, zinc, and copper exceed acute and chronic water quality criteria. Numerical limitations and/or monitoring requirements were placed in this permit on all known toxic constituents of the effluent. A monitoring requirement for acute toxicity is also included in this permit.

The water quality standards state at Section 24.0206(h)(3), "Compliance with the above standard shall be evaluated with a 96-hour bioassay or short-term method for estimating chronic toxicity ..." The permittee is required to conduct a semi-annual 96-hr static renewal acute bioassay on composite effluent samples using white shrimp *Penaeus vannamei* postlarvae. The white shrimp is a warm-water species that is currently being used in acute bioassays performed in labs in Hawaii. In the event that *P. vannamei* are not available for testing, *Mysidopis bahia* may be used.

The permittee is also required to conduct at least one priority pollutant scan of the effluent prior to the application for renewal of the permit. Full or partial priority scans may be required in conjunction with semi-annual bioassay tests if toxicity tests indicate a need.

H. Ammonia

Prior to the previous permit, the canneries requested that they be exempt from the acute toxicity requirement within a mixing zone. The ASEQC approved this request. Little EPA guidance exists, however, to define a mixing zone in marine waters that prevents lethality to passing organisms. The technical support document for the canneries' zone of mixing application cites a few alternatives, but none seems appropriate to this situation.

The canneries' consultant proposed to use an 80:1 dilution. This dilution, according to their modeling, occurs 30 seconds after the effluent leaves the pipe. The area associated with an 80:1 dilution is approximately 12 meters. They claim that such a dilution will ensure no lethality to passing organisms.

EPA National Water Quality Criteria for unionized ammonia is 0.233 mg/l for marine waters. This value is the Criterion Maximum Concentration (CMC). Multiplying this 0.233 by 80 yields 18.64 mg/l. Referencing the manual "Tables of the fraction of Ammonia in the Undissociated form, for pH 6 to 9, temperature 30^{O} C, TDS 0-300 mg/l, and salinity 5-35 g/kg," by H.P. Skarheim of the University of California, Berkeley, College of Engineering, and using a pH value of 8.5, temperature of 29^{O}C, and salinity 35 g/kg (all characteristics of harbor waters), the unionized fraction of ammonia is 14 percent. Therefore the ammonia limit for the canneries is established at 133 mg/l.

I. Metals

Monitoring of cannery effluent for cadmium, chromium, lead, mercury, and zinc was required in the previous permit because metal readings in Pago Pago Harbor have been historically high. Cannery effluent was found to be in compliance for cadmium,

chromium, lead, and mercury. Continued effluent monitoring is no longer necessary for these parameters. However, concentrations of zinc and copper exceeded acute and chronic water quality criteria. The canneries shall conduct monthly monitoring of zinc and copper to determine current levels of these parameters and to ensure compliance with the discharge limitations.

The canneries' consultant reported that zinc and copper are unavoidable outcomes of processing due to the machinery and equipment used. Consequently, the canneries have applied to the ASEPA for a zone of mixing for these metals. Monitoring of ambient receiving water indicated background zinc concentrations of less than 20 ug/l and copper concentrations of less than 0.5 ug/l. Significant initial dilution should ensure no toxicity from metals within the zone of mixing.

Analysis of nine sets of data gathered from semi-annual effluent monitoring resulted in the calculation of maximum expected effluent concentrations. The expected maximum effluent concentration of zinc for StarKist Samoa is 324 ug/l, 1254 ug/l for COS Samoa Packing, and 513 ug/l for the joint outfall. The expected maximum effluent concentration of copper for StarKist Samoa is 35 ug/l, 55 ug/l for COS Samoa Packing, and 36 ug/l for the joint outfall. The canneries consultant incorporated these maximum expected effluent concentrations in determining that a dilution of 25:1 would be sufficient to reduce maximum measured concentrations within approximately 4 to 6 meters from the discharge ports of the diffuser. Using background and effluent information, the dilution required to meet water quality criteria was calculated as follows:

$$D_R = (C_E - C_A)/(C_S - C_A)$$

where:

D_R is the dilution required to reduce the concentration (C_E) to C_S
C_E is the effluent concentration
C_S is the concentration desired (water quality criteria)
C_A is the ambient receiving water concentration

The canneries' consultant predicts the maximum exposure time of an organism entrained in the discharge plume to be less than 10 to 12 seconds.

EPA National Recommended Water Quality Criteria lists the criterion maximum concentration (CMC) for zinc in saltwater as 90 ug/l. The criterion continuous concentration (CCC) for zinc in saltwater is 81 ug/l. Discharge limitations were determined by using the equation described above and solving for C_E. The daily maximum for zinc, based on the CMC, is 1770 ug/l, and the 30-day average, based on the CCC, for each cannery is 1545 ug/l.

For copper in saltwater, the EPA National Recommended Water Quality Criteria lists the CMC as 4.8 ug/l and the CCC as 3.1 ug/l. Using the same equation described above, the

daily maximum, based on the CMC, is 108 ug/l, and the 30-day average, based on the CCC, is 66 ug/l for each canneries' discharge limitations.

J. Pago Pago Harbor Monitoring Program

Because the discharge point was moved to a less degraded portion of the harbor, a monitoring program was designed to assess the environmental impacts of the canneries' discharge on that area and to ensure compliance with the water quality standards. Results of the previously conducted monitoring program verified modeling predictions and eliminated the need to conduct further dye or tracer, harbor-wide circulation, or eutrophication studies. The current constituents of the program are as follows:

1. Quantitative Data

   Temperature, pH, dissolved oxygen, total suspended solids, light penetration, turbidity, salinity, chlorophyll a, total nitrogen, total phosphorus, total ammonia, copper and zinc are all measured to ensure compliance with numerical limits of the receiving water.

2. Sediment Monitoring

   Sediment monitoring will determine sediment character in relation to long-term nutrient discharge to the harbor by the permittee and the effect of nutrient resuspension on harbor recovery. The canneries (StarKist Samoa and COS Samoa Packing) shall cooperatively perform a sediment monitoring program in Pago Pago Harbor in order to assess the concentration of nutrient and organic components, the distribution of stored nutrients, the size of the nutrient reservoir and the rate of accumulation of nutrients.

3. Coral Reef Survey

   Although previous studies have shown no coral reef degradation attributable to the discharge, continued monitoring on a less frequent basis of a subset of previously sampled sites will detect differences in the coral reef. Monitoring sites located near the discharge and in the middle and outer harbor will assess the potential impacts of the discharge on the coral reef.

4. Fish Tissue Study

   A fish tissue study, conducted concurrently with receiving water quality and sediment monitoring, will detect levels of selected parameters in the tissues of resident organisms in the harbor. Whole fish analysis of mullet, mackerel, and crab for lead, arsenic, mercury, PCBs (Aroclor 1260), selected pesticides (DDT, DDE, DDD), and dioxin shall be conducted. Within 120 days of permit issuance,

the permittee is required to submit a detailed fish tissue study plan to ASEPA and USEPA-Region 9 for comment and approval. The study will address potential sources and levels of these substances and is a follow-up study to previous monitoring performed by ASEPA.

5. Sea Turtle Review

In conjunction with the fish tissue study, the canneries will retain a recognized expert to review the effluent chemistry and bioassay data to determine if there is any anticipated impact on sea turtles in Pago Pago Harbor. The canneries will provide a report of the findings to EPA and ASEPA concurrent with the fish tissue study report.

K. Wastewater Treatment System Evaluation

The permittee should be continuously seeking ways to improve the quality of its effluent. In order to foster that search, the previous permit included a requirement to hire an independent consultant to examine the plant and provide a report on possible improvements. The study was conducted, and the implemented recommendations resulted in improvements. It is no longer necessary to continue this study at this time.

L. Pollution Prevention Program

Monitoring and maintaining the pollution prevention program developed under the previous permit will continue to help reduce the amount of pollutants in the effluent and the receiving waters. Ways to reduce the amount of pollutants entering the harbor must continue to be examined.

III. THREATENED AND ENDANGERED SPECIES

EPA reviewed information provided by the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) to determine whether the discharge from the canneries would affect any endangered species or habitat in the waters around American Samoa. In a letter from the NMFS, dated September 5, 2000, three species that might be found in the waters around American Samoa were listed. Endangered humpback whales may be found offshore during the winter months. Threatened green turtles and endangered hawksbill turtles may occur in the nearshore waters throughout American Samoa. The same three species were listed in a letter from the FWS dated September 22, 2000.

Further telephone conversations with a member of the NMFS Protected Species Program have indicated that humpback whales rarely enter Pago Pago harbor. Discussions with

NMFS and the American Samoa Department of Marine and Wildlife Resources confirm that green and hawksbill turtles are spotted in the harbor. Due to the location of the outfall and the ample dilution that the discharge undergoes, we would expect the discharge authorized by this NPDES permit to cause NO EFFECT on the threatened and endangered species listed in the waters of American Samoa.

The permit contains provisions for monitoring conventional and nonconventional pollutants, and requirements for whole effluent toxicity testing in compliance with ASEPA standards, to ensure an appropriate level of water quality discharged by the canneries. The permit also requires review of effluent chemistry and bioassay data by a recognized expert to determine any possible impact to turtles in Pago Pago Harbor. Reopener clauses have been included should new information become available to indicate that the requirements of the permit need to be changed.

In considering all information available during the drafting of this permit, EPA believes that a NO EFFECT determination is appropriate for this federal action. A copy of the draft fact sheet and permit were forwarded to NMFS and FWS for review and comment during the pre-public notice review period and 30-day public review period.

IV. ADMINISTRATIVE INFORMATION

A. Public Notice (40 CFR §124.10)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft NPDES permit or other significant action with respect to a NPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit.

Public notice for this permit was given in the Samoa News on October 30, 2000.

B. Public Comment Period (40 CFR §124.10)

Notice of this permit was placed in a daily or weekly newspaper within the area affected by the facility or activity, with a minimum of 30 days provided for interested parties to respond in writing to EPA.

After the closing of the public comment period, EPA is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued. The permittee, in conjunction with its consultant, and the Department of Marine and Wildlife Resources were the only commenters. Repsonses to comments were provided with the final permit.

C. Public Hearing (40 CFR §124.12(c))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held when there is a significant amount of interest expressed during the 30-day public comment period or when it is necessary to clarify the issues involved in the permit decision.

D. State Certification (40 CFR §§124.53 and 124.54)

After the draft permit has been modified to include any relevant comments from the 30-day public comment period, the draft final permit is forwarded to American Samoa Environmental Protection Agency for CWA Section 401 certification. This certification ensures that the permit will comply with applicable Federal CWA standards as well as with American Samoa Water Quality Standards. EPA Region 9 will not issue this permit until a 401 certification is received.

V. ADDITIONAL INFORMATION

Additional information relating to this proposed permit may be obtained from:

U.S. Environmental Protection Agency, Region IX
CWA Standards & Permits Office Mail Code: WTR-5
75 Hawthorne Street
San Francisco, California 94105-3901
Telephone:(415)744-1914
Sara Roser

VI. INFORMATION SOURCES

While developing effluent limitations, monitoring requirements and special conditions for the permit, the following information sources were used:

A. NPDES Permit Application Form 1 and Form 2C, dated May 30, 1997.

B. American Samoa Water Quality Standards. Revision adopted November 4, 1999.

C. 40 CFR parts 122 and 408

D. National Recommended Water Quality Criteria-Correction, April 1999. Environmental Protection Agency, Office of Water.

RESPONSE TO COMMENTS

COS Samoa Packing Company
NPDES Permit No. AS0000027

StarKist Samoa, Inc.
NPDES Permit No. AS0000019

Comments on the draft permits for these facilities were received from COS Samoa Packing, their consultant, and the American Samoa Department of Marine and Wildlife Resources (DMWR).

EFFLUENT LIMITATIONS

1. COS Samoa Packing Company and their consultant, CH2M HILL, commented in letters dated November 20, 2000 and November 22, 2000, respectively. Both comments questioned the flow limitation of 0.91 mgd in the draft permit. The previous permit, issued in 1992, originally set the flow limit at 0.72 mgd. During the previous permit cycle, modifications to the treatment plant resulted in improvements that allowed the flow limitation to be increased to 1.4 mgd.

   Response: The comment points out an oversight by the permit writer of documented events that led to the increased flow limit during the previous permit cycle. The correct flow limitation of 1.4 mgd has since been incorporated into the current COS Samoa Packing permit limitations. No other changes in effluent limitations resulted from this action.

   Additionally, the StarKist Samoa flow limitation was decreased from 2.9 mgd in the 1992 permit to 2.1 mgd in the draft permit. This decrease was erroneously based on reported maximum flows rather than the design flow. The error was corrected and no other discharge limitations were affected.

THREATENED AND ENDANGERED SPECIES

2. DMWR commented on the occurrence of hawksbill and green turtles in Pago Pago Harbor. The draft fact sheet states that green turtles nest in the harbor and hawksbill turtles visit the harbor occasionally. DMWR comments stated that hawksbill turtles are regularly spotted and recovered in the harbor, in contrast to the statement in the fact sheet claiming hawksbill turtles as occasional visitors to the harbor.

   Response: Further conversations with NMFS clarified two points presented in the fact sheet: (1) the frequency of sighting hawksbill turtles in the harbor has not been officially recorded, and (2) green turtles are not able to nest in the harbor because suitable nesting habitat is unavailable. Since definitive counts and descriptions are not available, the fact sheet has been revised to only generally state that ". . . green and hawksbill turtles are spotted in the harbor."

3. American Samoa DMWR commented on the need to verify the NO EFFECT finding in

the Threatened and Endangered Species section of the fact sheet. DMWR suggested requiring the canneries to fund a research project, including tissue sampling of turtles found dead in the harbor, to determine the impact of the canneries' discharge on the turtle population of Pago Pago harbor.

Response: Effluent monitoring and bioassay data do not suggest that the canneries' discharge is affecting turtles in the waters of American Samoa. However, a section has been added to the canneries' Pago Pago Harbor monitoring program to address this point. The canneries are required to retain a recognized expert to review effluent chemistry and bioassay data to determine if there is any anticipated impact from the discharge on sea turtles in Pago Pago Harbor. The permit includes a reopener clause should the review indicate new information that the requirements of the permit need to be changed.

Permit No. AS0000027

AUTHORIZATION TO DISCHARGE UNDER THE

POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provision of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq.; the "Act"),

COS Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, Tutuila
American Samoa 96799

is authorized to discharge tuna processing wastewater from the cannery located at Pago Pago, American Samoa from outfall Discharge Serial No. 001:

Latitude:	14 deg.	17 min.	01 sec.	S
Longitude:	170 deg.	40 min.	02 sec.	W

to receiving waters named: Pago Pago Harbor in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in Sections A through G hereof.

This permit shall become effective on January 23, 2001.

This permit and the authorization to discharge shall expire at midnight, January 23, 2006.

Signed this 21st day of December, 2000.

For the Regional Administrator

Alexis Strauss, Director
Water Division

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning with the effective date of this permit and lasting through the expiration date of this permit, the permittee is authorized to discharge from Outfall 001.

The effluent shall be sampled prior to its commingling with the effluent from the other cannery.

Such discharge shall be limited and monitored by the permittee as specified below:[1]

Effluent Characteristics	Discharge Limitations		Monitoring Requirements	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow (MGD)	--	1.40	Continuous	Recorder
Biochemical Oxygen Demand (5-day)	[5]	[5]	Once/Month	Composite
Suspended Solids (lbs/day)	2376	5976	Once/Week	Composite
Oil and Grease (lbs/day)	605	1512	Once/Week	Grab[2]
Total Phosphorus (lbs/day)	208	271	One Set/Month [3]	Composite
Total Nitrogen (lbs/day)	800	1935	One Set/Month [3]	Composite
Acute Toxicity	--	[4]	Once/6 Months	Composite
Total Ammonia (mg/l)	--	133	Once/Week	Composite
Temperature (^{O}F)	90	95	Continuous	Continuous
Total Copper (ug/l)	66	108	Once/Month	Composite
Total Zinc (ug/l)	1545	1770	Once/Month	Composite
pH	--	[6]	Continuous	Continuous

Notes:

(1) Where discharge monitoring data is reported as "below detection limit," both the detection limit obtained and the analytical method used shall be included on the monthly discharge monitoring report (DMR).

(2) Each oil and grease sample shall consist of four individual grab samples ("sub-samples") which shall be taken at even intervals during each production period in which samples are taken. Each sub-sample shall be separately analyzed and the mean value of the four sub-samples shall be reported for daily maximum and monthly average.

(3) Permittee is required to monitor monthly. Each month permittee shall sample twice in a single week on production days. Should the permittee wish to monitor the effluent on a non-production day(s), the permittee must monitor for the six consecutive days following the non-production day on which the first sample was taken. The average of all samples taken during that month will determine compliance with the "monthly average."

Should the canneries consistently comply with their TN and TP limitations and should the monitoring data show that the discharge is not impacting the water quality in the harbor or causing water quality violations for one year, the permit may be modified to incorporate a "weighted average" method of measuring compliance with the limitations. The numerical limitations themselves shall not be made any less stringent.

(4) See Section D "Toxicity" for monitoring requirements.

(5) No limit set at this time. Monitoring and reporting only.

(6) The pH is limited between 6.5 and 8.6 standard units. The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calender month; and no individual excursions from the range of pH values shall exceed 60 minutes.

B. DISCHARGE SPECIFICATIONS

Samples taken at monitoring stations 8, 8A, 14, 15, 16, and 18 in the receiving water shall not reveal* any of the following in accordance with American Samoa Water Quality Standards:

1. Chlorophyll a levels in excess of 1.0 ug/l;

2. Light penetration depth less than 65 feet;

3. Objectionable color, odor, or taste, either alone or in combinations, or in the biota;

4. Visible floating materials, grease, oil, scum, foam, and other floating material; and,

5. Materials that will produce visible turbidity or settle to form objectionable deposits.

Samples taken at monitoring stations 8, 8A, 15, 16, and 18 in the receiving water (those stations outside the zone of initial dilution [ZID]) shall not reveal* any of the following in accordance with American Samoa Water Quality Standards:

1. Dissolved oxygen (DO) concentration less than 5.0 mg/l or 70% saturation;

2. Turbidity in excess of 0.75 nephelometric turbidity units; and

3. Toxicity to aquatic life.

Samples taken at monitoring stations 15, 16, and 18 in the receiving water (those stations outside the zone of mixing [ZOM]) shall not reveal* any of the following in accordance with the American Samoa Water Quality Standards:

1. A temperature more than 1.5 degrees Fahrenheit from conditions that would occur naturally;

2. A level of total nitrogen in excess of 200 ug/l; and

3. A level of total phosphorous in excess of 30 ug/l.

*Should any samples of ambient water reveal exceedances of the standards specified above and should ASEPA and/or USEPA determine that the canneries' discharge is the cause of the exceedance, the canneries may be required to undertake various actions including ceasing discharge and/or additional studies or monitoring to determine the cause of the exceedance. Violations of water quality standards shall be determined in accordance with American Samoa Water Quality Standards.

C. PROTECTED AND PROHIBITED USES

1. The protected uses of Pago Pago Harbor are as follows:

    a. Recreational and subsistence fishing;
    b. Boat-launching ramps and designated mooring areas;
    c. Subsistence food gathering, e.g. shellfish harvesting;
    d. Aesthetic enjoyment;
    e. Whole and limited body-contact recreation, e.g. swimming, snorkeling, surfing, and scuba diving;
    f. Support and propagation of marine life;
    g. Industrial water supply;
    h. Mari-culture development;
    I. Normal harbor activities; e.g. ship movements, docking, loading and unloading, marine railways and floating drydocks; and
    j. Scientific investigation.

2. Prohibited uses include but are not limited to:

    a. Dumping or discharge of solid waste;
    b. Animal pens over or adjacent to any shoreline;
    c. Dredging and filling activities, except when permitted by the American Samoa Environmental Quality Commission (ASEQC) in accordance with the Environmental Quality Act (Title 24, American Samoa Code);
    d. Hazardous and radioactive waste discharges;
    e. Discharge of oil sludge, oil refuse, fuel oil, or bilge water, or any other wastewater from any vessel or unpermitted shoreside facility.

    The permittee shall not engage in any of the above prohibited uses nor in any uses that would conflict with the protected uses of the harbor.

D. TOXICITY

1. Proposed Effluent Biomonitoring

    Beginning within 180 days after the effective date of this permit, the permittee shall conduct, or have a contract laboratory conduct, semi-annual 96-hour static renewal acute bioassays on composite effluent samples according to the methods described in Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (EPA/600/4-90/027F), August 1993 using the white shrimp, *Penaeus vannamei* postlarvae. In the event that *Penaeus vannamei* are

not available for testing, *Mysidopis bahia* may be used. Every reasonable effort shall be made to ship the samples to the testing laboratory in a manner to meet holding times and maintain sample temperature at 4C. Tests shall be conducted using a ≤ 0.5 dilution series (i.e., 100%, 25%, 12.5%, 6.25%, 3.13%, 1.56%).

Use probit analysis to calculate the LC50 and 95% confidence intervals. Use Analysis of Variance and Dunnett's multiple comparison test to calculate the No Observed Effect Concentrations (NOEC). These results will be reported on the permittee's Discharge Monitoring Report (DMRs).

Each cannery may conduct the tests individually or may conduct a test using a single combined flow weighted composite effluent. However, ASEPA or USEPA may require additional individual bioassay tests for each cannery after review of combined composite effluent tests.

2. Priority Pollutant Scan

The permittee shall conduct at least one priority pollutant scan of the effluent. This test shall be conducted prior to the application for renewal of the permit. The results shall be submitted to the USEPA and ASEPA prior to application for renewal of the permit. If the toxicity tests indicate that the discharge causes, has a reasonable potential to cause, or contributes to non-compliance with American Samoa Water Quality Standards, then ASEPA and/or USEPA may require full or partial priority pollutant scans be conducted concurrent with the required semi-annual bioassay tests.

3. Toxicity Reopener

Should any of the monitoring indicate that the discharge causes, has reasonable potential to cause, or contributes to an excursion above a water quality criteria, the permit may be reopened for the imposition of water quality-based limits and/or whole effluent toxicity limits. Also, this permit may be modified, in accordance with the requirements set forth at 40 CFR 122.44 and 124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity, or to implement any EPA-approved new state water quality standards or testing methods applicable to effluent toxicity.

E. RECEIVING WATER QUALITY MONITORING PROGRAM

To determine compliance with water quality standards, the receiving water quality monitoring program must document water quality at the outfall, at areas near the zone of initial dilution (ZID) and zone of mixing (ZOM) boundaries, at areas beyond these zones where discharge impacts might reasonably be expected, and at reference control areas. The canneries (StarKist Samoa and COS Samoa Packing) shall cooperatively perform, or cause to be performed, water quality monitoring at the specified stations at regular frequencies as detailed below.

Should any monitoring or studies reveal, in the judgement of either ASEPA or USEPA, that the water quality, coral reef, or overall biological health of the harbor is being impaired as a result of the joint cannery outfall discharge, either agency may at any time prohibit further discharge and/or require additional monitoring.

All water quality samples should be collected and processed according to the protocols found in the most recent edition of USEPA's guidance document entitled, Quality Assurance and Quality Control (QA/QC) for 301(h) Monitoring Programs: Guidance on Field and Laboratory Methods (EPA, 1987a, or the most recent edition). Monitoring reports shall be submitted to ASEPA and USEPA on a semi-annual basis.

Monitoring stations shall be designated and located as shown below (also see Figure 1):

Station	Vicinity	Location	Latitude	Longitude
5	Transition Zone	Harbor Mouth	14 17.713' S	170 39.733' W
8	Middle Harbor	Inside ZOM	14 16.843' S	170 40.098' W
8A	Middle Harbor	Inside ZOM	14 16.826' S	170 40.150' W
11	Inner Harbor	East End	14 16.480' S	170 40.947' W
13	Inner Harbor	West End	14 16.304' S	170 41.841' W
14	Middle Harbor	Diffuser	14 16.911' S	170 40.065' W
15	Middle Harbor	ZOM Edge	14 16.584' S	170 40.116' W
16	Middle Harbor	ZOM Edge	14 16.891' S	170 40.354' W
18	Outer Harbor	ZOM Edge	14 16.092' S	170 40.041' W

Note: Latitude and longitude and based on recorded GPS using the WGS coordinate system as employed in previous Receiving Water Quality Monitoring Reports, Pago Pago Harbor, American Samoa, 1995-1997.

It is recommended that the stations be located using the sextant angle resection positioning method or a positioning system that affords an equivalent degree of accuracy and precision. Other means may be used if, in the judgement of ASEPA and EPA Region

9, they are of sufficient accuracy and precision to allow reoccupation of the stations within plus or minus six (6) meters.

Monitoring shall be done semi-annually during the two predominant oceanographic season described as the tradewind and non-tradewind season. One sampling event should be done in the months of February through April and the other sampling event should be done in the months of August through October. Reports will be submitted to ASEPA and USEPA within 60 days of receipt of laboratory results.

Temperature, dissolved oxygen (DO), pH, conductivity, and turbidity shall be measured as continuous vertical profiles at each station. Salinity shall be calculated from temperature and conductivity. In the event of malfunctions of the sensors used to measure the continuous vertical profile parameters, direct measurement of grab samples, in the field, will be acceptable. Light penetration shall be measured at all stations by measurement of sechi depth. All other required parameters shall be measured in grab samples taken at one (1) meter below the surface, mid-depth, and one meter above the bottom. In locations where the depth is greater than 40 meters, samples shall be taken at one meter below the surface, 20 meters, and 40 meters.

The following parameters shall constitute the Water Quality Monitoring Program:

Parameter	Units	Stations	Sample Type
Temperature	F	5,8,18,14,15,16,8A,11,13	Vertical Profile
Salinity	PSU	5,8,18,14,15,16,8A,11,13	Vertical Profile
pH	SU	5,8,18,14,15,16,8A,11,13	Vertical Profile
Dissolved Oxygen	mg/l and %Sat	5,8,18,14,15,16,8A,11,13	Vertical Profile
Turbidity	NTU	5,8,18,14,15,16,8A,11,13	Vertical Profile
Turbidity	NTU	18, 14, 15, 16	Grab
Light Penetration	feet	5,8,18,14,15,16,8A,11,13	Direct Reading
Suspended Solids	mg/l	5,8,18,14,15,16,8A,11,13	Grab
Chlorophyll-a	mg/l	5,8,18,14,15,16,8A,11,13	Grab
Total Ammonia	mg/l	5,8,18,14,15,16,8A,11,13	Grab
Total Nitrogen	mg/l	5,8,18,14,15,16,8A,11,13	Grab
Total Phosphorous	mg/l	5,8,18,14,15,16,8A,11,13	Grab
Copper	mg/l	5, 8, 8A,11,13,14,15	Grab
Zinc	mg/l	5, 8, 8A,11,13,14,15	Grab
Lead	mg/l	5,11,13,14	Grab
Mercury	mg/l	5,11,13,14	Grab
Arsenic	mg/l	5,11,13,14	Grab

The water quality analyses shall be expanded for one of the water quality monitoring events during the first year of the permit as described in Section H below.

F. SEDIMENT MONITORING

Sediment monitoring is conducted to determine the character of the sediments in relation to long-term high nutrient discharge by the permittee in the harbor and to determine if the harbor recovery will be affected by resuspension of the nutrients.

The canneries (StarKist Samoa and COS Samoa Packing) shall cooperatively perform a sediment monitoring program in Pago Pago Harbor in order to assess the concentration of nutrient and organic components, the distribution of stored nutrients, the size of the nutrient reservoir, and the rate of accumulation of nutrients. Seven sites shall be located within Pago Pago Harbor and analyzed for total nitrogen, total phosphorous, percent organics, percent solids, volatile solids, grain size distribution, oxidation-reduction potential, sulfides, copper, zinc, lead, mercury, and arsenic. Three sites shall be located in inner Pago Pago Harbor and four sites shall be located in the middle and outer portion of the harbor.

Monitoring stations shall be designated and located as shown below (see Figures 2):

Station	Vicinity	Location	Latitude	Longitude
IH1	Inner Harbor	Between old outfalls	14 16.626' S	170 41.146' W
IH2	Inner Harbor	Offshore of old outfalls	14 16.708' S	170 41.146' W
IH3	Inner Harbor	Off Pago Pago stream	14 16.655' S	170 41.854' W
OH1	Outer Harbor	400' NNW of outfall	14 17.076' S	170 40.100' W
OH2	Outer Harbor	400' SSE of outfall	14 17.186' S	170 40.025' W
OH3	Outer Harbor	Utulei outfall	14 17.243' S	140 40.425' W
OH4	Outer Harbor	Reference	14 17.537' S	170 40.067' W

Note: Latitude and longitude based on recorded GPS using the WGS coordinate system as employed in previous Sediment Monitoring Reports, Pago Pago American Samoa, 1993-1997.

The sites and study methods shall be the same as described in the previously approved study plan for the sediment monitoring conducted during 1993-1997. The sampling shall be conducted twice: once during the first year of the permit and once during the fourth year of the permit. A report of the sediment monitoring program shall be submitted to ASEPA and USEPA within 90 days after completion of the sampling.

The following parameters shall constitute the Sediment Monitoring Program:

Parameter	Units	Stations	Sample Type
Total Nitrogen (TKN)	mg/kg (dry)	All	Grab
Total Phosphorous	mg/kg (dry)	All	Grab
Total Sulfides	mg/kg (dry)	All	Grab
Redox Potential	mV	All	Grab[1]
Total Organic Carbon	%	All	Grab
Percent Solids	%	All	Grab
Total Volatile Solids	%	All	Grab
Grain Size	mm (distribution)	All	Grab
Copper	mg/kg	All	Grab
Zinc	mg/kg	All	Grab
Lead	mg/kg	All	Grab
Mercury	mg/kg	All	Grab
Arsenic	mg/kg	All	Grab

[1] Measured in the field when sample is acquired

The first sediment monitoring event shall be expanded during the first year of the permit as described in Section H below. If possible, the sediment sampling event conducted in conjunction with the fish tissue study will include core samples at the inner harbor stations. The canneries shall make a reasonable attempt to collect core samples and , if successful, analysis shall be done using material from two levels in the cores (or at the lower level from the core and a surficial grab sample).

G. CORAL REEF SURVEY

The canneries (StarKist Samoa and COS Samoa Packing) shall cooperatively continue the coral reef survey based on the previously approved study plan for the monitoring conducted during 1993-1997 with the modifications described below. The purpose of the study is to assess the potential impacts of the discharge on the nearby coral reef. The intent of the survey is to detect significant differences, if any, from the previous surveys. VCR formatted video copies and a report of results shall be submitted to the ASEPA and USEPA with reports within 120 days of the survey.

The survey will be done twice during the permit period, once in year two of the permit and once in year 5 of the permit. These surveys will include a subset of the previous

transect locations. Transect locations to be surveyed are MH-1, MH-4, OH-5, and OH-1 (see Figure 3). After reviewing the results of the first survey, ASEPA and USEPA may require different or additional transects during the second survey and/or additional surveys.

H. FISH TISSUE STUDY

The canneries (COS Samoa Packing and StarKist Samoa) shall cooperatively perform a study during the first year of the permit that addresses the levels of selected parameters in the tissues of resident organisms in the Harbor. The study will be done concurrently with receiving water quality monitoring (Section E) and sediment monitoring (Section F) sampling. The water quality and sediment monitoring studies shall be expanded, for the sampling done in conjunction with the fish study, to include selected additional stations and parameters. The intent of the study is to assess the potential sources and levels of these substances and is a follow-up study to previous monitoring performed by ASEPA.

Within 120 days of the effective date of the permit, the canneries shall submit a study plan to ASEPA and USEPA-Region 9 for comment and approval. The study shall include the following elements:

1. Whole fish tissue analysis of mullet, mackerel, and crab (or acceptable substitute organisms) for lead, arsenic, mercury, PCBs (Aroclor 1260), selected pesticides (DDT, DDE, DDD), and dioxin. Analysis of dioxin will be required in only one composite sample of species collected from the inner harbor.

2. The study shall primarily address organisms captured in the harbor. Detailed station locations and parameters to be analyzed shall be described in the study plan. The following stations (See Figure 4) and parameters should be included in the study:

Parameter	Inner Harbor			Reference		
	Mullet Composite	Mackerel Composite	Crab Composite	Mullet Composite	Mackerel Composite	Crab Composite
Lead	X	X	X	X	X	X
Arsenic	X	X	X	X	X	X
Mercury	X	X	X	X	X	X
PCBs	X	X	X	X	X	X
Pesticides	X	X	X	X	X	X
Dioxin		X				

Notes: The inner harbor is that area described as shoreward of a line extending from Goat Island Point to the northern shoreline. The reference location shall be described in the study plan submitted within 120 days of the effective date of the permit.

3. The study shall include water quality samples for the same set of parameters (excluding dioxin, which will be considered for only one sample) at a minimum of six stations in the inner and middle harbor and a reference station. Detailed station locations and parameters to be analyzed will be described in the study plan. The following stations and parameters should be included in the study:

Parameter	Inner Harbor Stations				Middle Harbor Stations			Reference Station
	11	11A	12	13	8A	**15**	14	5
Lead	X	X	X	X	X	**X**	X	X
Arsenic	X	X	X	X	X	**X**	X	X
Mercury	X	X	X	X	X	**X**	X	X
PCBs	X			X				X
Pesticides	X			X				X
Dioxin				X				

Note: All stations are previously occupied harbor water quality stations.

4. The study shall include sediment samples for the same set of parameters (excluding dioxin, except at one station) at a minimum of six stations in the inner harbor and a reference station. If possible, the sediment sampling will include core samples at the inner harbor stations. The canneries shall make a reasonable attempt to collect core samples and, if successful, analysis shall be done using material from two levels in the cores (or at the lower level from the core and a surficial grab sample). Detailed station locations and parameters to be analyzed shall be described in the study plan. The following stations (See Figure 4) and parameters should be included in the study:

Parameter	Inner Harbor Stations						Reference Station
	Total organic carbon, total solids, total volatile solids, and grain size distribution will be analyzed for all samples.						
	IH-1	**IH-2**	**IH-3**	**4**	**FD**	**SWM**	**OH-4**
Lead	X	X	X	X	X	X	X
Arsenic	X	X	X	X	X	X	X
Mercury	X	X	X	X	X	X	X
PCBs			X				X
Pesticides			X				X
Dioxin			X				

Notes: IH-1, IH-2, IH-3, and OH-4 are the previously occupied sediment quality stations.
Station 4 is the previously occupied station for the CH2M HILL water quality field measurements (1/1/91). Stations FD and SWM will be adjacent to the fuel dock and the boat repair facility, respectively.

5. The study plan shall include descriptions of sampling locations, sampling methods, analytical laboratories to be used, laboratory methods, detection levels, and A/QC procedures.

6. A report shall be prepared and submitted to ASEPA and USEPA within 90 days of receipt of laboratory results.

I. SEA TURTLE REVIEW

In conjunction with the fish tissue study, the canneries will retain a recognized expert to review the effluent chemistry and bioassay data to determine if there is any anticipated impact on sea turtles in Pago Pago Harbor. The canneries will provide a report of the findings to EPA and ASEPA concurrent with the fish tissue study report.

J. POLLUTION PREVENTION PROGRAM

The canneries shall maintain the pollution prevention program developed in the previous permit period. The canneries shall submit an annual report documenting the effectiveness of the program and improvements to it. A copy of this report shall be available onsite.

K. DEFINITIONS

1. "Ambient conditions" means the existing conditions in the surrounding waters not influenced by the discharger's effluent.

3. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility whose operation is necessary to maintain compliance with the terms and conditions of this permit.

4. "Whole-effluent toxicity" is the aggregate toxic effect of an effluent measured directly with a "toxicity test."

5. "Composite sample" means, for other than flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of the discharge, whichever is shorter.

   "Composite sample" means, for other than flow rate measurement,

   a. A combination of at least eight individual portions of equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling.

   OR

   b. A combination of at least eight individual portions of equal volume obtained over

a 24-hour period. The time interval will vary such that the volume of wastewater discharged between samplings remains constant.

The compositing period shall equal the specified sampling period, or 24 hours, if no period is specified.

6. "Daily discharge" means:

   a. For flow rate measurement, the average flow rate measured during a calender day or during any 24-hour period reasonably representative of the calender day for purposes of sampling.

   b. For pollutant measurements, the concentration or mass emission rate measured during a calender day or during any 24-hour period reasonably representative of the calender day for purposes of sampling.

7. "Daily maximum" limit means the maximum acceptable "daily discharge." For pollutant measurements, unless otherwise specified, the results to be compared to the "daily maximum" limit are based on "composite samples."

8. "Duly authorized representative" is one whose:

   a. Authorization is made in writing by a principal executive office or ranking elected official;

   b. Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

   c. Written authorization is submitted to the ASEPA and EPA. If an authorization becomes no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements must be submitted to ASEPA and EPA prior to or together with any reports, information, or other applications to be signed by an authorized representative.

8. "Grab sample" is defined as any individual sample collected in a short period of time not

exceeding 15 minutes. "Grab samples" shall be collected during normal peak loading conditions for the parameter of interest, which may or may not be during hydraulic peaks. It is used primarily in determining compliance with "daily maximum" limits.

9. "Hazardous substance" means any substance designated under 40 CFR 116 pursuant to Section 311 of the Clean Water Act.

10. "Heavy metals" are, for the purposes of this permit, arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc.

11. "Indirect discharger" means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.

12. "Initial dilution" is the process which results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

    For a submerged buoyant discharge, characteristics of most municipal wastes that are released from the submarine outfalls, the momentum of the discharger and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

    Numerically, initial dilution is expressed as the ratio of the volume of discharged effluent plus ambient water entrained during the process of initial dilution to the volume of discharged effluent.

13. "Mass emission rate" is obtained from the following calculations for any calender day:

$$\text{Mass emission rate (lb/day)} = 8.345/N \sum_{i=1}^{N} Qi\ Ci$$

$$\text{Mass emission rate (kg/day)} = 3.785/N \sum_{i=1}^{N} Qi\ Ci$$

in which 'N' is the number of samples analyzed in any calender day. 'Qi" and 'Ci' are the flow rate (MGD) and the concentration (mg/L), respectively, which are associated with each of the 'N' grab samples which may be taken in any calender day. If a composite sample is taken, 'Ci' is the concentration measured in the composite sample and 'Qi' is the average flow rate occurring during the period over which samples are

composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste stream as follows:

$$\text{Daily concentration} = 1/Qt \sum_{i=1}^{N} Qi\ Ci$$

in which 'N' is the number of component waste streams. 'Qi' and 'Ci' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Qt' is the total flow rate of the combined waste streams.

14. "Monthly average" is the arithmetic mean of daily concentrations, or of daily "mass emission rates," over the specified monthly period:

$$\text{Average} = 1/N \sum_{i=1}^{N} Xi$$

in which 'N' is the number of days samples were analyzed during the period and 'Xi' is either the constituent concentration (mg/L) or mass emission rate (kg/day or lb/day) for each sampled day.

15. "100-year frequency flood" means a flood of unusually large magnitude and which is characterized by its infrequent occurrence.

16. "Open coastal waters" means marine waters bounded by 100 fathom (183 m; 600 ft) depth contour and the shoreline excluding bays named in section 24.0205 (e)(1)-(3) of the American Samoa water quality standards.

17. "Overflow" means the intentional or unintentional diversion of flow from the collection and transport systems, including the pumping facilities.

18. "Pesticides" are, for purposes of this permit, those six constituents referred to in 40 CFR 125.58 (m) (demeton, guthion, malathion, mirex, methoxychlor, and parathion).

19. "Pollutant-free wastewater" means infiltration and inflow, cooling waters, and condensates which are essentially free of pollutants.

20. "Priority pollutants" are those constituents referred to in 40 CFR 401.15 and listed in the EPA NPDES Application Form 2C, pp. V-3 through V-9.

21. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a "bypass" or "overflow." It does not mean economic loss by delays in production.

22. "Sludge" means the solid, semi-liquid suspension of solids, residues, screenings, grit, scum, and precipitates separated from, or created in wastewater by the unit processes of a treatment system. It also includes, but is not limited to, all supernatant, filtrate, centrate, decantate, and thickener overflow/underflow in the solids handling parts of the wastewater treatment system.

23. "Toxic pollutant" means any pollutant listed as toxic under Section 307 (a) (1) of the Clean Water Act or under 40 CFR 122, Appendix D. Violation of the maximum daily discharge limitations are subject to the 24-hour reporting requirement (section P.13.f).

24. "Toxicity test" is the means to determine the toxicity of a chemical or an effluent using living organisms. A toxicity test measures the degree of response of an exposed test organism to a specific chemical or effluent.

25. "Toxic unit chronic" is the reciprocal of the effluent dilution that causes no unacceptable effect on the test organisms by the end of the chronic exposure period.

26. "Upset" means any exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations in the permit because of factors beyond the reasonable control of the discharger. It does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, careless or improper operation, or those problems the discharger should have foreseen.

27. "Waste", waste discharge", "discharge of waste", and "discharge" are used interchangeably in this permit. The requirements of this permit are applicable to the entire volume of water, and the material therein, which is disposed of to marine waters.

28. "Weekly average" is the arithmetic mean of daily concentrations, or of daily mass emission rates, over the specified weekly period:

$$\text{Average} = 1/N \sum_{i=1}^{N} Xi$$

in which 'N' is the number of days samples were analyzed during the period and "Xi" is either the constituent concentration (mg/L) or the "mass emission rate" (kg/day or lb/day) for each sampled day.

29. "Zone of initial dilution" (ZID) means the region of initial mixing surrounding or adjacent to the end of the outfall pipe or difusser ports, providing that the ZID may not be larger than allowed by mixing zone restrictions in applicable water quality standards [40 CFR 125.58 (W)]. For purposes of designating monitoring stations, the region within a horizontal distance equal to a specified water depth (usually depth of outfall or average depth of diffuser) from any point of the diffuser or end of the outfall and the water column above and below that region, including the underlying seabed.

30. "Zone of mixing" (ZOM) means limited areas around outfalls and other facilities approved by ASEQC with the concurrence of EPA to allow for the initial dilution of waste discharges [American Samoa Water Quality Standards].

L. QUALITY ASSURANCE/QUALITY CONTROL

All waste material sampling procedures, analytical protocols, and quality assurance/quality control procedures shall be performed in accordance with guidelines specified by EPA. The following references shall be used by the permittee where appropriate:

1. EPA, 40 CFR 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act;

2. Tetra Tech, Inc. 1985. Summary of the U.S. EPA-approved methods and other guidance for 301 (h) monitoring variables. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-01-693. Tetra Tech, Inc., Bellevue, WA; and

3. Tetra Tech, Inc. 1986. Quality assurance and quality control guidance for 301 (h) monitoring programs. Final program document prepared for the Marine Operations

Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-01-3968. Tetra Tech, Inc., Bellevue, WA.

M. REPORTING

Monitoring results obtained during the previous 3 months shall be summarized for each month and submitted quarterly on forms to be supplied by EPA, to the extent that the information reported may be entered on the forms. The results of all monitoring required by this permit shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this permit. Monitoring reports shall be postmarked no later than the 28th day of the month following the completed reporting period. The first report is due 4 months after the effective date of this permit. Signed copies of these and all other reports required herein shall be submitted to the EPA and the Government of American Samoa at the following addresses:

Environmental Protection Agency - Region 9
Attn: Pacific Insular Area Programs (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Director
American Samoa Environmental Protection Agency
Office of the Governor
Pago Pago, American Samoa 96799

N. EPA REGION IX STANDARD CONDITIONS

See attachment.

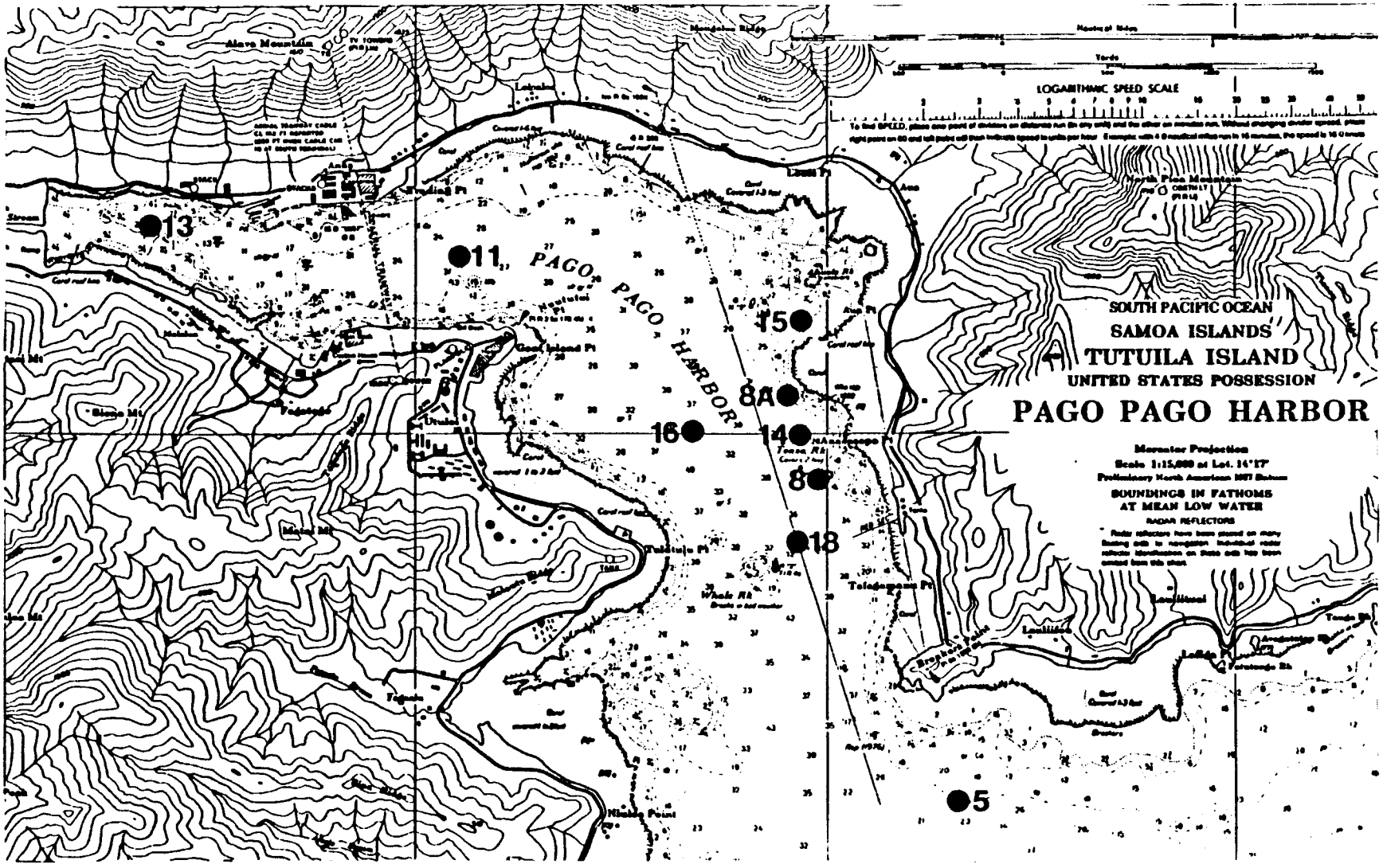


Figure 1. Receiving Water Quality Monitoring Stations

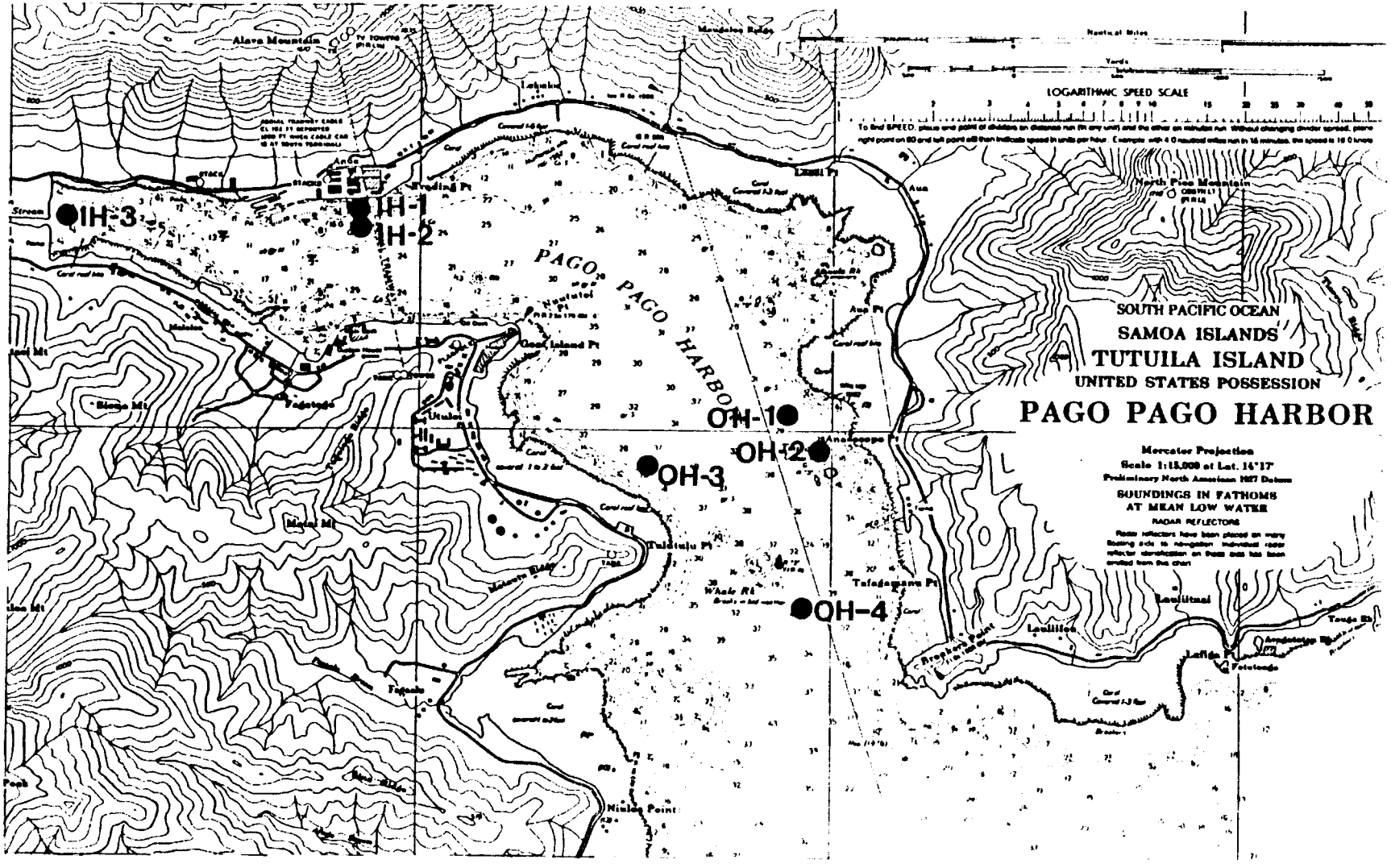


Figure 2. Sediment Monitoring Stations

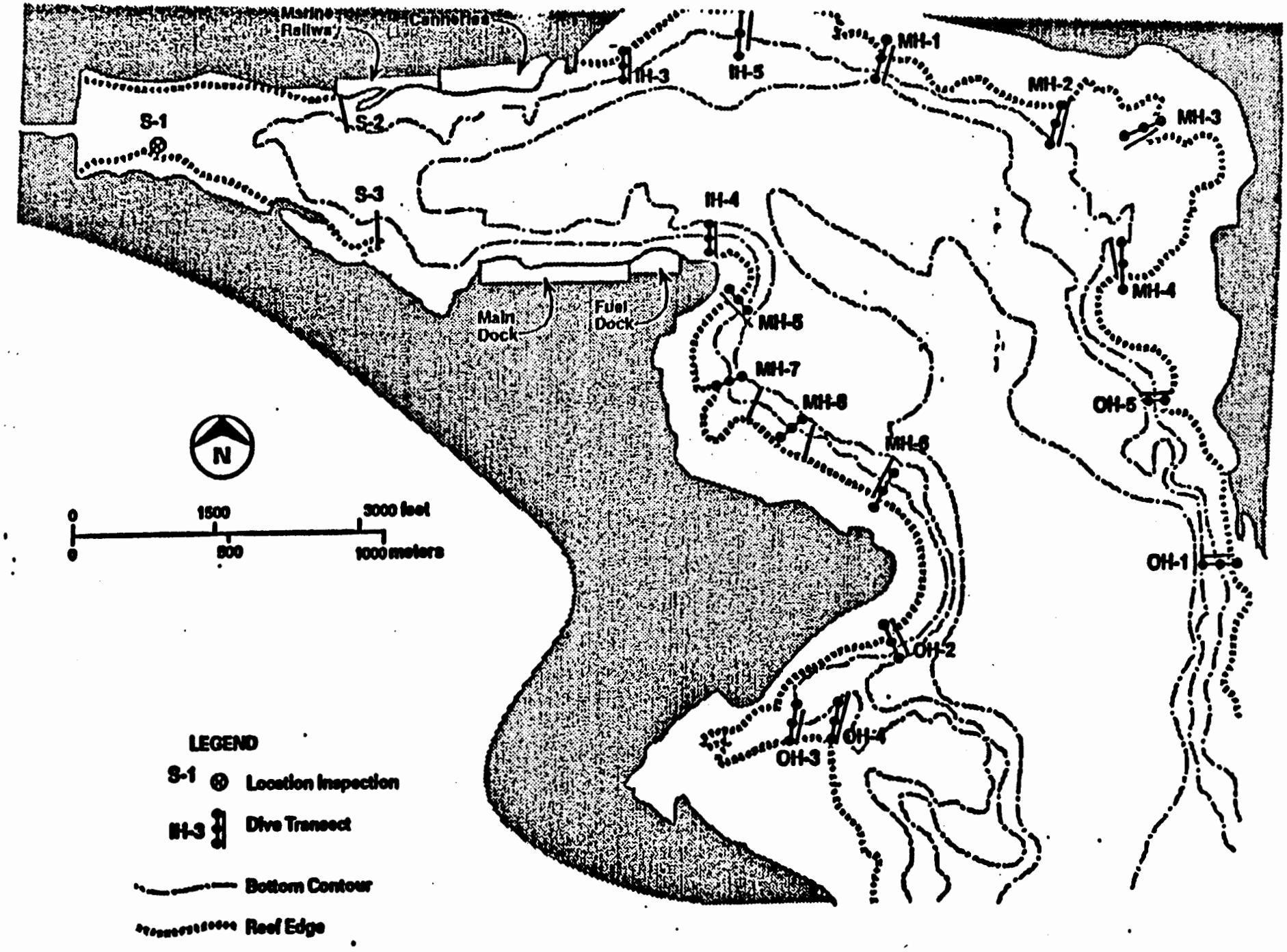


Figure 3. Coral Reef Survey Transect Locations

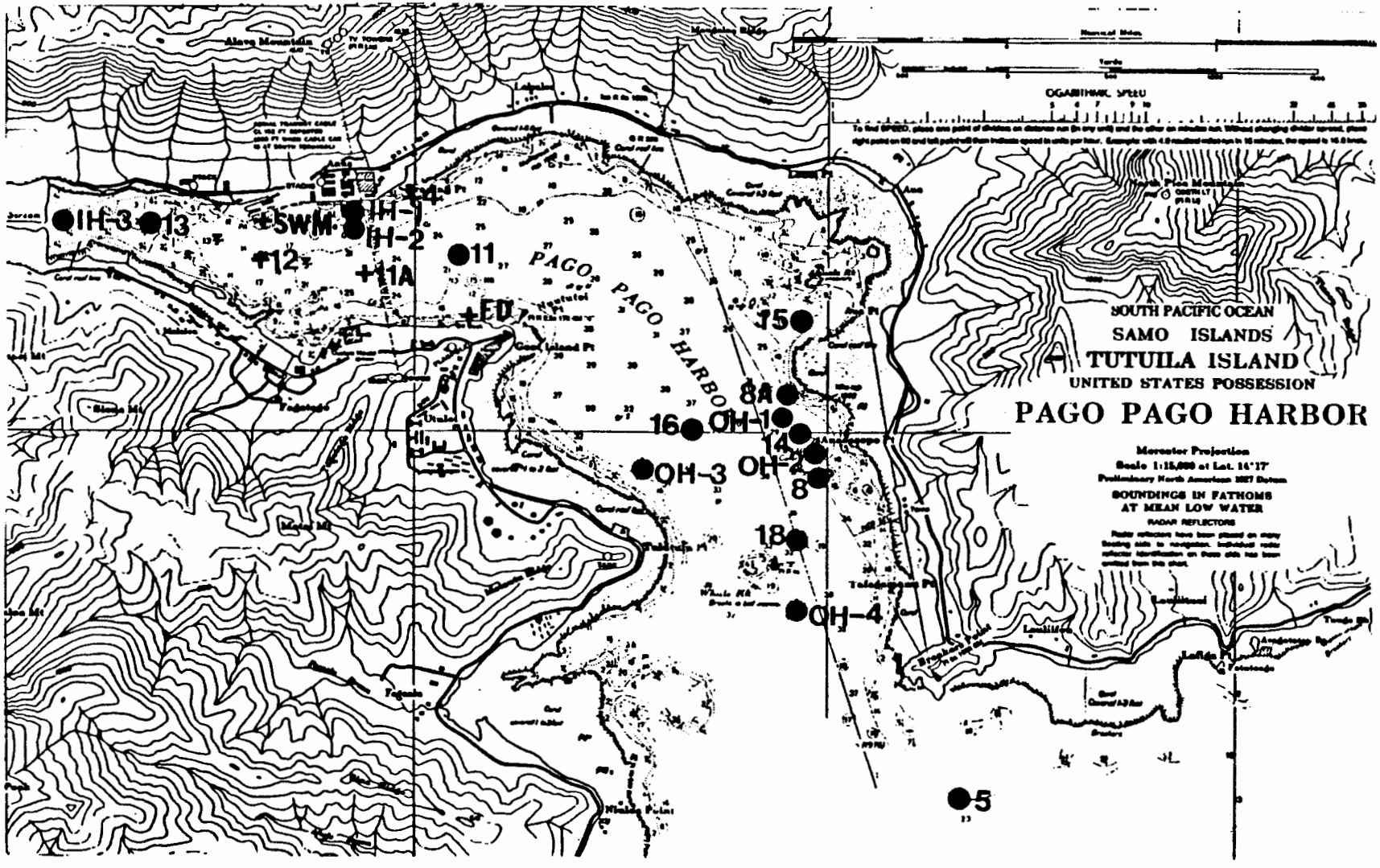


Figure 4. Fish Tissue Study Stations

EPA REGION IX STANDARD FEDERAL NPDES PERMIT CONDITIONS

(Updated as of May 10, 1990)

1. Duty to Reapply [40 CFR 122.21(d)]

The Permittee shall submit a new application 180 days before the existing permit expires. 122.2(c)(2) POTW's with currently effective NPDES permits shall submit with the next application the sludge information listed at 40 CFR 501.15(a)(2).

2. Applications [40 CFR 122.22]

a. All applications shall be signed as follows:

1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principle business function, or any other person who performs similar policy- or decision-making functions for the corporation, or

b) The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

3) For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (I) The chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

b. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this Section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1) The authorization is made in writing by a person described in paragraph (a) of this section;

2) The authorization specifies either an individual or a position having

responsibility for the overall operation of the regulated facility, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and,

3) The written authorization is submitted to the Director.

c. Changes to Authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

d. Certification. Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

3. Duty to Comply [40 CFR 122.41(a)]

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

a. The permittee shall comply with the effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulation that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

b. The Clean Water Act provides that:

1) Any person who causes a violation of any condition in this permit is subject to a civil penalty not to exceed $25,000 per day of each violation. Any person who negligently causes a violation of any condition in this permit is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both for a first conviction. For a second conviction, such a person is subject to a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two years, or both. [Updated pursuant to the Water Quality Act of 1987]

2) Any person who knowingly causes a violation of any condition of this permit is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than three years, or both for a first conviction. For a second conviction, such a person is subject to a fine of not more than $100,000 per day of violation, or by imprisonment for not more than six years, or both. [Updated pursuant to the Water Quality Act of 1987]

3) Any person who knowingly causes a violation of any condition of this permit and, by doing so, knows at that time that he thereby places another in imminent danger of death or serious bodily injury shall be subject to a fine of not less than $250,000, or imprisonment for not more than 15 years, or both. A person who is an organization and violates this provision shall be subject to a fine of not more than $1,000,000 for a first conviction. For a second conviction under this provision, the maximum fine and imprisonment shall be doubled. [Updated pursuant to the Water Quality Act of 1987]

4. Need to Halt or Reduce Activity Not a Defense [40 CFR 122.41(c)]

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

5. Duty to Mitigate [40 CFR 122.41(d)]

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance [40 CFR 122.41(e)]

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or

similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

7. Permit Actions [40 CFR 122.41(f)]

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

8. Property Rights [40 CFR 122.41(g)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

9. Duty to Provide Information [40 CFR 122.41(h)]

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Director upon request, copies of records required to be kept by this permit.

10. Inspection and Entry [40 CFR 122.41(I)]

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and such other documents as may be required by law, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the terms of the permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring equipment or control equipment), practices or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

11. Monitoring and Records [40 CFR 122.41(j)]

a. Samples and measurements taken for the purpose of monitoring shall be

representative of the monitored activity.

b. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application, except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Director at any time.

c. Records of monitoring information shall include:

1) The date, exact place and time of sampling or measurements;

2) The individual(s) who performed the sampling or measurements;

3) The date(s) the analyses were performed;

4) The individual(s) who performed the analyses;

5) The analytical techniques or methods used; and

6) The results of such analyses.

d. Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, or in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless test procedures have been specified in this permit.

e. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained in this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both for first conviction. For a second conviction, such a person is subject to a fine of not more than $20,000 per day of violation, or imprisonment for not more than four years, or both. [Updated pursuant to the Water Quality Act of 1987]

12. Signatory Requirement [40 CFR 122.41(k)]

a. All applications, reports, or information submitted to the Director shall be signed and certified. (See 40 CFR 122.22)

b. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both for a first conviction. For a second conviction, such a person is subject to a fine of not more than $20,000 per day of violation, or imprisonment of not more than four years, or both. [Updated pursuant to the Water Quality Act of 1987]

13. Reporting Requirements [40 CFR 122.41(l)]

a. Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations of additions to the permitted facility. Notice is required only when:

1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).

3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

b. Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

c. Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory).

d. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

1) Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Director for reporting results of monitoring of sludge use or disposal practices.

2) If the Permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136 or in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, as specified in the permit, then the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR, or sludge reporting form specified by the Director.

3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Director in the permit.

e. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

f. Twenty-four hour reporting.

1) The permittee shall report any noncompliance which may endanger human health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

2) The following shall be included as information which must be reported within 24 hours under this paragraph.

a) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR 122.41(g))

b) Any upset which exceeds any effluent limitation in the permit.

c) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit to be reported within 24 hours. (See 40 CFR 122.44(g))

g. Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (6) of this section.

h. Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

14. Bypass [40 CFR 122.41(m)]

a. Definitions

1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of paragraphs (3) and (4) of this section.

c. Notice.

1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of bypass.

2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (a)(6) of section 13 (24-hour notice).

d. Prohibition of bypass.

1) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c) The permittee submitted notices as required under paragraph (3) of this section.

2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (4)(I) of this section.

15. Upset [40 CFR 122.41(n)]

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (3) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defenses of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1) An upset occurred and that the permittee can identify the cause(s) of the upset;

2) The permitted facility was at the time being properly operated; and

3) The permittee submitted notice of the upset as required in paragraph 13)(6)(ii)(B) (24-hour notice).

4) The permittee complied with any remedial measures required under 40 CFR 122.41(d).

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

16. Existing Manufacturing, Commercial, Mining, and Silvicultural Dischargers [40 CFR 122.42(a)]

In addition to the reporting requirements under 40 CFR 122.41(l), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

1) One hundred micrograms per liter (100 µg/l);

2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

3) Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or

4) The level established by the Director in accordance with 40 CFR 122.44(f).

b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

1) Five hundred micrograms per liter (500 µg/l);

2) One milligram per liter (1 mg/l) for antimony;

3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7);

4) The level established by the Director in accordance with 40 CFR 122.44(f).

17. Publicly Owned Treatment Works [40 CFR 122.42(b)]

This section applies only to publicly owned treatment works as defined at 40 CFR 122.2.

a. All POTW's must provide adequate notice to the Director of the following:

1) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of the CWA if it were directly discharging those pollutants; and

2) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

3) For the purposes of this paragraph, adequate notice shall include information on (I) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharge from the POTW.

b. [The following condition has been established by Region 9 to enforce applicable requirements of the Resource Conservation and Recovery Act] Publicly owned treatment works may not receive hazardous waste by truck, rail, or dedicated pipe except as provided under 40 CFR 270. Hazardous wastes are defined at 40 CFR 261 and include any mixture containing any waste listed under 40 CFR 261.31 - 261.33. The Domestic Sewage Exclusion (40 CFR 261.4) applies only to wastes mixed with domestic sewage in a sewer leading to a publicly owned treatment works and not to mixtures of hazardous wastes and sewage or septage delivered to the treatment plant by truck.

18. Reopener Clause [40 CFR 122.44(c)]

This permit shall be modified or revoked and reissued to incorporate any applicable effluent standard or limitation or standard for sewage sludge use or disposal under sections 301(b)(2)(C), and (D), 304(b)(2), 307(a)(2) and 405(d) which is promulgated or approved after the permit is issued if that effluent or sludge standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant or sludge use or disposal practice not limited in the permit.

19. Privately Owned Treatment Works

[The following conditions were established by Region 9 to enforce applicable requirements of the Resource Conservation and Recovery Act and 40 CFR 122.44(m)]

This section applies only to privately owned treatment works as defined at 40 CFR 122.2.

a. Materials authorized to be disposed of into the privately owned treatment works and collection system are typical domestic sewage. Unauthorized material are hazardous waste (as defined at 40 CFR Part 261), motor oil, gasoline, paints, varnishes, solvents, pesticides, fertilizers, industrial wastes, or other materials not generally associated with toilet flushing or personal hygiene, laundry, or food preparation, unless

specifically listed under "Authorized Non-domestic Sewer Dischargers" elsewhere in this permit.

b. It is the permittee's responsibility to inform users of the privately owned treatment works and collection system of the prohibition against unauthorized materials and to ensure compliance with the prohibition. The permittee must have the authority and capability to sample all discharges to the collection system, including any from septic haulers or other unsewered dischargers, and shall take and analyze such samples for conventional, toxic, or hazardous pollutants when instructed by the permitting authority or by an EPA, State, or Tribal inspector. The permittee must provide adequate security to prevent unauthorized discharges to the collection system.

c. Should a user of the privately owned treatment works desire authorization to discharge non-domestic wastes, the permittee shall submit a request for permit modification and an application, pursuant to 40 CFR 122.44(m), describing the proposed discharge. The application shall, to the extent possible, be submitted using EPA Forms 1 and 2C, unless another format is requested by the permitting authority. If the privately owned treatment works or collection system user is different from the permittee, and the permittee agrees to allow the non-domestic discharge, the user shall submit the application and the permittee shall submit the permit modification request. The application and request for modification shall be submitted at least 6 months before authorization to discharge non-domestic wastes to the privately owned treatment works or collection system is desired.

20. Transfers by Modification [40 CFR 122.61(a)]

Except as provided in section 21, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under 40 CFR 122.62(b)(2)), or a minor modification made (under 40 CFR 122.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under the CWA.

21. Automatic Transfers [40 CFR 122.61(b)]

An alternative to transfers under section 20, any NPDES permit may be automatically transferred to a new permittee if:

a. The current permittee notifies the Director at least 30 days in advance of the proposed transfer date in paragraph (2) of this section;

b. The notice includes a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

c. The Director does not notify the existing permittee and the proposed new permittee of his or her intent to modify or revoke and reissue the permit. A modification under this subparagraph may also be a minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph (2) of this section.

22. Minor Modification of Permits [40 CFR 122.63]

Upon the consent of the permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following the procedures of 40 CFR Part 124. Any permit modification not processed as a minor modification under this section must be made for cause and with 40 CFR Part 124 draft permit and public notice as required in 40 CFR 122.62. Minor modifications may only:

a. Correct typographical errors;

b. Require more frequent monitoring or reporting by the permittee;

c. Change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;

d. Allow for a change in ownership or operational control of a facility where the Director determines that no other change in their permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Director.

e. Change the construction schedule for a discharger which is a new source. No such change shall affect a discharger's obligation prior to discharge under 40 CFR 122.29.

f. Delete a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with the permit limits.

g. When the permit becomes final and effective on or after March 9, 1982, conform to changes respecting 40 CFR 122.41(e), (l), (m)(4)(I)(B), (n)(3)(I), and 122.42(a) issued September 26, 1984.

h. Incorporate conditions of a POTW pretreatment program that has been approved in accordance with the procedures in 40 CFR 403.11 as enforceable conditions of the POTW's permit.

23. Termination of Permits [40 CFR 122.64]

The following are causes for terminating a permit during its term, or for denying a permit renewal application:

a. Noncompliance by the permittee with any condition of the permit;

b. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time;

c. A determination that the permitted activity endangers human health or the environment and can only by regulated to acceptable levels by permit modification or termination; or

d. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by the permit (for example, a plant closure or termination of discharge by connection to a POTW).

24. Availability of Reports [Pursuant to Clean Water Act Section 308]

Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Regional Administrator. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

25. Removed Substances [Pursuant to Clean Water Act Section 301]

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters.

26. Severability [Pursuant to Clean Water Act Section 512]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and remainder of this permit, shall not be affected thereby.

27. Civil and Criminal Liability [Pursuant to Clean Water Act Section 309]

Except as provided in permit conditions on "Bypass" (Section 14) and "Upset" (Section 15), nothing in this permit shall be construed to relieve the permittee from civil or criminal

penalties for noncompliance.

28. Oil and Hazardous Substance Liability [Pursuant to Clean Water Act Section 311]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

29. State or Tribal Law [Pursuant to Clean Water Act Section 510]

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State or Tribal law or regulation under authority preserved by Section 510 of the Clean Water Act.